Federation of Malysia

EDICT OF GOVERNMENT

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MS 1759 (2004) (English): GEOGRAPHIC INFORMATION/GEOMATICS – FEATURES AND ATTRIBUTE CODES

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MALAYSIAN STANDARD

MS 1759:2004

GEOGRAPHIC INFORMATION/GEOMATICS – FEATURES AND ATTRIBUTE CODES

Date: 24/09/2007
Amd. 1

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(1) To change the title from GEOGRAPHIC INFORMATION/GEOMATICS – FEATURES AND ATTRIBUTE CODES to GEOGRAPHIC INFORMATION/GEOMATICS – FEATURE AND ATTRIBUTE CODES.

(2) Annex A, Page 68

To delete the following clause:

Feature Code: **HH070**
Feature Name: Island
Description: A body of land completely surrounded by water or marsh.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

The above clause is deleted and a new sub-category for Island is introduced in the Addendum 1.

(3) Annex A, Page 73

To change the *hydrography's miscellaneous* code from HL to HM

(Note : HL has been designated to Island)

MALAYSIAN STANDARD

MS 1759:2004

**GEOGRAPHIC INFORMATION/GEOMATICS –
FEATURES AND ATTRIBUTE CODES**

Date: 24/09/2007
Add 1

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(1) Annex A, Page 23

D – DEMARCATION

DA – Topographic (Boundaries/Limits/Zones)

Feature Code:	**DA0086**
Feature Name:	Sub-district Boundary Administrative
Description:	A line defining the limit of a sub-district for administrative purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0087**
Feature Name:	Sub-district Coverage Administrative
Description:	An area of land that falls within a sub-district boundary for administrative purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA1190**
Feature Name:	Residential Landuse Boundary
Description:	A line defining the limit of a residential landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1200**
Feature Name:	Residential Landuse Area
Description:	An area of land that falls within a residential landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Residential Landuse Type (RLT)

Feature Code:	**DA1210**
Feature Name:	Industrial Landuse Boundary
Description:	A line defining the limit of an industrial landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1220**
Feature Name:	Industrial Landuse Area
Description:	An area of land that falls within an industrial landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Industrial Landuse Type (ILT)

Feature Code:	**DA1230**
Feature Name:	Commercial and Services Landuse Boundary
Description:	A line defining the limit of a commercial and services landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1240**
Feature Name:	Commercial and Services Landuse Area
Description:	An area of land that falls within a commercial and services landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Commercial and Services Landuse Type (CUT)

Feature Code:	**DA1250**
Feature Name:	Institutional Landuse Boundary
Description:	A line defining the limit of an institutional and public facility landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1260**
Feature Name:	Institutional Landuse Area
Description:	An area of land that falls within an institutional and public facility landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Institutional Landuse Type (IAT)

Feature Code:	**DA1270**
Feature Name:	Recreational and Open Space Landuse Boundary
Description:	A line defining the limit of a recreational and open space landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1280**
Feature Name:	Recreational and Open Space Landuse Area
Description:	An area of land that falls within a recreational and open space landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Recreational and Open Space Type (RUT)

Feature Code:	**DA1290**
Feature Name:	Transportation Landuse Boundary
Description:	A line defining the limit of a transportation landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1300**
Feature Name:	Transportation Landuse Area
Description:	An area of land that falls within a transportation landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Transportation Landuse Type (TLT)

Feature Code:	**DA1310**
Feature Name:	Infrastructure and Utility Landuse Boundary
Description:	A line defining the limit of an infrastructure and utility landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1320**
Feature Name:	Infrastructure and Utility Landuse Area
Description:	An area of land that falls within an infrastructure and utility landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Infrastructure and Utility Type (IFT)

Feature Code:	**DA1330**
Feature Name:	Agricultural Landuse Boundary
Description:	A line defining the limit of an agricultural landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1340**
Feature Name:	Agricultural Landuse Area
Description:	An area of land that falls within an agricultural landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Agriculture Landuse Type (AGT)

Feature Code:	**DA1350**
Feature Name:	Forest Landuse Boundary
Description:	A line defining the limit of a forest landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1360**
Feature Name:	Forest Landuse Area
Description:	An area of land that falls within a forest landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Forest Landuse Type (FRT)

Feature Code:	**DA1370**
Feature Name:	Water Body Landuse Boundary
Description:	A line defining the limit of a water body landuse boundary
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1380**
Feature Name:	Water Body Landuse Area
Description:	An area of land that falls within a water body landuse area
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (Ha) (ARH), Water Body Landuse Type (WBT)

(2) Annex A, Page 43

G – GEOLOGY

GA - Geolithology

Feature Code:	GA3800
Feature Name:	Volcanic Pyroclastic
Description:	Rock formed of material from volcanic explosion
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Volcanic Pyroclastic Type (VPT)

(3) Annex A, Page 57

H- HYDROGRAPHY

HL – Island

Feature Code:	HL0010
Feature Name:	Inland Island
Description:	A naturally formed area of land, surrounded by inland water, which is above water at high tide.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)
Feature Code:	HL0020
Feature Name:	Coastal Island
Description:	A naturally formed area of land, surrounded by seawater within 3 nautical miles from the coastline, which is above water at high tide.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)
Feature Code:	HL0030
Feature Name:	Offshore Island
Description:	A naturally formed area of land, surrounded by seawater beyond the State Territorial Water Boundary, which is above water at high tide.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

(4) Annex B, Page 121

RLT **Planned Residential Landuse Type**

Type of a residential landuse zone

RLT	1	Planned Strata
RLT	2	Planned Non Strata
RLT	3	Traditional Village
RLT	4	Fishing Village
RLT	5	*Kampung Tersusun*
RLT	6	*Kampung Atas Air*
RLT	7	Aboriginal Village
RLT	8	Group Settlement Village
RLT	9	New Village
RLT	10	Squarters
RLT	11	Estate
RLT	12	Others

ILT **Industrial Landuse Type**

Type of an industrial landuse zone

ILT	1	Planned Light Industry
ILT	2	Unplanned Light Industry
ILT	3	Planned Medium Industry
ILT	4	Unplanned Medium Industry
ILT	5	Planned Heavy Industry
ILT	6	Unplanned Heavy Industry
ILT	7	Planned Special Industry
ILT	8	Unplanned Special Industry
ILT	9	Planned Service Industry
ILT	10	Unplanned Service Industry
ILT	11	Active Mining Industry
ILT	12	Non Active Mining Industry
ILT	13	Active Quarry Industry
ILT	14	Non Active Quarry Industry

CUT Commercial and Services Landuse Type
Type of a commercial and services landuse zone

CUT	1	Wholesale
CUT	2	Retail
CUT	3	Services
CUT	4	Others

Institutional Landuse Type

IAT

Type of an institutional and public facilities landuse zone

IAT	1	Pre School
IAT	2	Primary School
IAT	3	Secondary School
IAT	4	Religious School
IAT	5	Integrated School
IAT	6	Special/Spastic School
IAT	7	College/Polytechnic
IAT	8	Institution of Higher Learning
IAT	9	Research Center
IAT	10	Training Institution
IAT	11	Rural Clinic
IAT	12	Clinic
IAT	13	Dental Clinic
IAT	14	Hospital
IAT	15	Surau
IAT	16	Mosque
IAT	17	Chinese Temple
IAT	18	Hindu Temple
IAT	19	Church
IAT	20	Muslim Cemetery
IAT	21	Chinese Cemetery
IAT	22	Buddhist Cemetery
IAT	23	Christian Cemetery
IAT	24	Hindu Cemetery
IAT	25	Sikh Cemetery
IAT	26	Crematorium
IAT	27	Police Beat
IAT	28	Police Station
IAT	29	Police Headquarters
IAT	30	Fire Station
IAT	31	Prison
IAT	32	Immigration Detention Center
IAT	33	Rehabilitation Center
IAT	34	Police Training Center
IAT	35	Army Training Center
IAT	36	Army Camp
IAT	37	Orphanage
IAT	38	Old Folk Home
IAT	39	Handicapped Home
IAT	40	Club House
IAT	41	Government Office
IAT	42	Palace
IAT	43	Museum
IAT	44	Multi Purpose Hall
IAT	45	Community Hall
IAT	46	Library/Archive
IAT	47	Post Office
IAT	48	Others

RUT **Recreational and Open Space Landuse Type**

Type of a recreational and open space landuse zone

RUT	1	Playing Lot
RUT	2	Play Ground
RUT	3	Neigbourhood Ground
RUT	4	Local Park *(Taman Tempatan)*
RUT	5	Town Park *(Taman Bandaran)*
RUT	6	Territory/State Park *(Taman Wilayah/Negeri)*
RUT	7	National Park
RUT	8	Botanical Garden
RUT	9	Special Garden (*Taman Khas)*
RUT	10	Stadium
RUT	11	Sport Complex
RUT	12	Racing Circuit
RUT	13	Playing Court
RUT	14	Golf Course
RUT	15	Polo Field
RUT	16	Firing Range
RUT	17	Theme Park
RUT	18	Zoo
RUT	19	Beach
RUT	20	Scrub
RUT	21	Grass/*Lalang* Land
RUT	22	Abandon Project Site
RUT	23	Under Construction Project Site
RUT	24	Others

TLT **Transportation Landuse Type**

Type of a transportation landuse zone

TLT	1	Highway
TLT	2	Federal Road
TLT	3	State Road
TLT	4	Town Road
TLT	5	Rail Line
TLT	6	Monorail Line
TLT	7	LRT/MRT Line
TLT	8	Airport
TLT	9	Port
TLT	10	Inland Port
TLT	11	Marina Center
TLT	12	Bus Terminal/Station
TLT	13	Taxi Terminal/Station
TLT	14	Rail/LRT Terminal/Station
TLT	15	Bus Deport
TLT	16	LRT/Rail Deport
TLT	17	Territory Deport
TLT	18	Ferry Terminal/Jetty
TLT	19	Boat Terminal/Jetty
TLT	20	Integrated Transportation Terminal
TLT	21	Fishing Jetty
TLT	22	Dockyard
TLT	23	Car Park
TLT	24	Cargo Transfer Station
TLT	25	Others

Infrastructure and Utility Landuse Type

IFT

Type of an infrastructure and utility landuse zone

IFT	1	500 KV Transmission Line
IFT	2	275 KV Transmission Line
IFT	3	132 KV Transmission Line
IFT	4	66 KV Transmission Line
IFT	5	Electric Power Station
IFT	6	Hydro Power Station
IFT	7	Main Intake (PMU)
IFT	8	Bulk Sub Station (PPU)
IFT	9	Sub Station (PE)
IFT	10	PGU I Gas Pipeline
IFT	11	PGU II Gas Pipeline
IFT	12	PGU III Gas Pipeline
IFT	13	City Gates Station
IFT	14	Gas Service Station *(Stesen Pengagih Gas)*
IFT	15	Dam
IFT	16	International Water Pipe Line
IFT	17	Interstate Water Pipe Line
IFT	18	Interdistrict Water Pipe Line
IFT	19	Water Treatment Plant
IFT	20	Intertidal Flat
IFT	21	Underground Intertidal Flat
IFT	22	Water Pump House
IFT	23	Water Tank
IFT	24	Irrigation Service Reservoir *(Kolam Takungan)*
IFT	25	Irrigation Retention Pond *(Kolam Tahanan)*
IFT	26	Irrigation Pump Station
IFT	27	Agricultural Drainage Drain
IFT	28	Irrigation Drainage System
IFT	29	Earth Satellite
IFT	30	VSAT Station
IFT	31	Cellular Radio Base Station
IFT	32	Exchange Building
IFT	33	Hill Station
IFT	34	Communication Radio Station
IFT	35	Communication Radar/Antenna Tower
IFT	36	Communication IT Hub
IFT	37	Telecommunication Transmission Tower
IFT	38	Telecommunication Network
IFT	39	Bin Point – Solid Waste
IFT	40	Transfer Station – Solid Waste
IFT	41	Sanitary Landfill – Solid Waste
IFT	42	Waste Treatment Plant – Chemical/ Hazardous
IFT	43	Transfer Station – Chemical/ Hazardous
IFT	44	Incinerator Plant – Chemical/ Hazardous
IFT	45	Secured Landfill - Chemical/ Hazardous
IFT	46	Waste Treatment Plant – Clinical
IFT	47	Transfer Station – Clinical
IFT	48	Incinerator Plant – Clinical
IFT	49	Secured Landfill - Clinical
IFT	50	Waste Treatment Plant - Radioactive
IFT	51	Transfer Station - Radioactive
IFT	52	Secured Landfill - Radioactive
IFT	53	Sewerage Treatment Plant
IFT	54	Sewerage Pump Station
IFT	55	Oxidation Pond
IFT	56	Others

AGT **Agriculture Landuse Type**

Type of an agriculture landuse zone

AGT	1	Rubber Estate
AGT	2	Rubber Smallholder
AGT	3	Oil Palm Estate
AGT	4	Oil Palm Smallholder
AGT	5	Paddy Irrigation Scheme
AGT	6	Outside Paddy Irrigation Scheme
AGT	7	Orchard
AGT	8	Planted Forest
AGT	9	Coffee
AGT	10	Cocoa
AGT	11	Tea
AGT	12	Screw Pine
AGT	13	Pineapple
AGT	14	Tobacco
AGT	15	Sugarcane
AGT	16	Tapioca
AGT	17	Banana
AGT	18	Dry Paddy
AGT	19	Pepper
AGT	20	Vegetable
AGT	21	Cash Crops
AGT	22	Spice
AGT	23	Chicken Farming
AGT	24	Cattle Husbandry
AGT	25	Dairy Farming
AGT	26	Pig Farming
AGT	27	Mix Farming
AGT	28	Duck/Goose Farming
AGT	29	Goat Farming
AGT	30	Sheep Farming
AGT	31	Grazing Ground
AGT	32	Saline Water Aquaculture
AGT	33	Freshwater Aquaculture
AGT	34	Brackish Water Aquaculture
AGT	35	Barren Land
AGT	36	Others

FRT **Forest Landuse Type**

Type of a forest landuse zone

FRT	1	Permanent Land Forest Reserve
FRT	2	State Land Forest Reserve
FRT	3	Protected Land Forest Area
FRT	4	Permanent *Bencah* Forest Reserve
FRT	5	State *Bencah* Forest Reserve
FRT	6	Protected *Bencah* Forest Area
FRT	7	Cleared Forest

WBT **Water Body Landuse Type**

Type of a water body landuse zone

WBT	1	River
WBT	2	Natural Lake
WBT	3	Swamp
WBT	4	Natural Lagoon
WBT	5	Sea
WBT	6	Ex-Mining
WBT	7	Man Made Recreational Lake
WBT	8	Man Made Dam Lake
WBT	9	Barren Beach Area
WBT	10	Barren Water Body Surrounding Area

RMT Regional Metamorphic Rock Type

Type of regional metamorphic rock

RMT	1	Metasandstone
RMT	2	Metaquartzite
RMT	3	Metasiltstone
RMT	4	Metaconglomerate
RMT	5	Marble
RMT	6	Slate
RMT	7	Phyllite
RMT	8	Schist
RMT	9	Gneiss
RMT	10	Amphibolite

VPT **Volcanic Pyroclastic Type**

Type of Volcanic Pyroclastic

VPT	1	Agglomerate
VPT	2	Others

MS 1759:2004

GEOGRAPHIC INFORMATION/GEOMATICS – FEATURES AND ATTRIBUTE CODES

ICS: 35.080

Descriptors: data processing, information interchange, network interconnection, communication procedure, security techniques, management, concepts, models, rules (instructions)

2004

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Committee representation

The Information Technology, Telecommunications and Multimedia Industry Standards Committee (ISC G) under whose authority this Malaysian Standard was developed, comprises representatives from the following organisations:

Association of Consulting Engineers Malaysia
Communication and Multimedia Commission
Computer Industry Association of Malaysia
Department of Standards Malaysia
Federation of Malaysian Manufacturers
Institut Tadbiran Awam Negara
Malaysian Administrative, Modernisation and Management Planning Unit
Malaysian Industry Government Group for High Technology
Malaysian Institute of Microelectronics Systems
Malaysian National Computer Confederation
Ministry of Defence
Ministry of Domestic Trade and Consumer Affairs
Ministry of Energy, Communication and Multimedia
Ministry of International Trade and Industry
Multimedia University
National ICT Security and Emergency Response Centre
SIRIM Berhad
Telekom Malaysia Berhad
The Institution of Engineers, Malaysia
Universiti Teknologi Malaysia
Universiti Tun Abdul Razak

The Technical Committee on Geographic Information/Geomatics which developed this Malaysian Standard consists of representatives from the following organisations:

C-Tel Technologies Sdn Bhd

Department of Survey and Mapping Malaysia

ESRI South Asia Sdn Bhd

GeoInfo Services Sdn Bhd

Malaysian Agriculture Research and Development Institute

Malaysian Centre for Geospatial Data Infrastructure

Malaysian Centre for Remote Sensing

Minerals and Geoscience Department

Public Works Department

SIRIM Berhad (Secretariat)

Universiti Sains Malaysia

Universiti Teknologi Malaysia

FOREWORD

This Malaysian Standard was developed by the Technical Committee on Geographic Information/Geomatics under the authority of the Information Technology, Telecommunication and Multimedia Industry Standards Committee based on the working draft prepared by the Technical Standards Committee of the Malaysian Geospatial Data Infrastructure (MyGDI).

This Standard cancels and replaces MS 1074:1992, Code of practice for the exchange of digital feature coded mapping data.

GEOGRAPHIC INFORMATION/GEOMATICS – FEATURES AND ATTRIBUTE CODES

0. Introduction

This Malaysian Standard is intended for use by all businesses that produce, distribute or utilise geospatial data, either alone or in conjunction with non-geospatial data. These range from geographic information systems, decision support systems, data mining, data warehousing, to modelling and simulations. Application areas include but not limited to resource planning and management, automated mapping, geo-engineering, construction, communication, transportation and utilities.

It provides a system for feature and attribute coding by which producers and users of geographic information may use in structuring their digital spatial data. This standard facilitates sharing and exchanging between both data producers and users.

This Standard represents a major improvement over MS 1074:1992 and contains some 2000 additional features and organised into twelve main categories such as aeronautical, geology, soil, utility and special use.

1. Scope

This Malaysian Standard specifies the method for encoding of geospatial data and provides the description of features and their associated attributes for the exchange of digital geographic information.

2. Normative references

The following normative references are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the normative reference (including any amendments) applies.

ISO/DIS 19104: [1)] , -*Geographic information - Terminology*

ISO/DIS 19110: [2)] , -*Geographic information – Methodology for feature cataloguing*

DIGEST Part 4 – Feature and Attribute Coding Catalogue (FACC)

United Nation Convention on Laws of the Sea (1982)

National Land Code (1965)

Laws of Sarawak, Land Code

Sabah Land Ordinance (1930)

[1] To be published.
[2] To be published.

3. Terms and definitions

For the purposes of this Malaysian Standard, the terms and definitions given in ISO/DIS 19104 apply.

4. Features and attributes

This Standard describes the encoding of the world in terms of features and attributes. Features are real world objects while attributes are properties or characteristics associated with the objects.

4.1 Coding of features and attributes

This standard has not been developed to the requirements of any single application or level of resolution. This standard is also not meant to support any specific digital product.

As with any dictionary, there may be more than one way to encode spatial entities, either by offering a choice of features or a combination of features and attributes. For example, an airport is listed as feature AB0010 – Aerodrome (A defined area on land or water intended to be used either wholly or in part for the arrival, departure and surface movement of aircrafts, could also be coded as feature BD0010 – Institutional Building with attribute INU (Institutional Usage) with a coded value of 001 (Airport Terminal). The choice is entirely up to user's own application and interpretation; to code only the terminal building or the entire aerodrome area.

Feature codes are shown in Annex A and Attribute codes and values are given in Annex B. Annex B also provides information as to the units, formats, ranges, increments and maximum text characters typically associated with each actual value attribute.

If a feature does not reside within this standard, it is allowed for a user-designated features and associated attributes. Otherwise, features and attributes shall be encoded using this standard. The process for amending and updating this standard is described in 4.3.

4.2 Coding structure

4.2.1 Features

Each feature is identified by a unique six-character code. The first character corresponds to the feature category and can have an alphabetic value from A through Z. Currently there are twelve feature categories, including one category, X, which has been reserved for special use (dataset-specific) features. The categories are as follows:

CODE	CATEGORY
A	Aeronautical
B	Built Environment
D	Demarcation
G	Geology
H	Hydrography
R	Hypsography
S	Soil
T	Transportation

U	Utility
V	Vegetation
X	Special Use (Dataset-specific)
Z	General

Each major category is further divided into subcategories which are identified by the second character of the six-digit code, containing an alphabetic value from A through Z. The subcategories that have currently been defined for each major category are as follows:

A-Aeronautical

AA	Air Space
AB	Aerodrome

B-Built Environment

BA	Residential
BB	Commercial
BC	Industrial
BD	Institutional
BE	Educational
BF	Religious
BG	Recreational
BH	Cemetery
BJ	Built-up

D-Demarcation

DA	Topographic
DB	Maritime
DC	Cadastral

G-Geology

GA	Geolithology
GB	Mineral
GC	Fossils
GD	Mining
GE	Exploration
GF	Geological Features
GG	Geoscience

H-Hydrography

HA	Coastal Hydrography
HB	Shoreline Structures
HC	Fishing Facillities
HD	Ports and Harbours
HE	Navigation Aids
HF	Danger and Hazard
HG	Depth Information
HH	Inland Water
HJ	River Structure
HK	Offshore
HL	Miscellaneous

R-Hypsography

RA	Relief Portrayal

S-Soil

SA	Histosols
SB	Spodosols
SC	Andisols
SD	Oxisols
SE	Vertisols
SF	Ultisols
SG	Mollisols
SH	Alfisols
SJ	Inceptisols
SK	Entisols

T-Transportation

TA	Land Transportation
TB	Water Transportation

U-Utility

UA	Electricity
UB	Telecommunication
UC	Water Supply
UD	Oil and Gas
UE	Broadcasting
UF	Sewerage
UG	Waste Management
UH	Meteorological

V-Vegetation

VA	Cropland (Perennials)
VB	Cropland (Annuals)
VC	Cropland (Cash-Crops)
VD	Natural Vegetation (Dryland)
VE	Natural Vegetation (Wetland)
VF	Natural Vegetation (Miscellaneous)

X-Special Use (Dataset specific)

XA	Terrain Analysis Dataset
XB	Meteorological Dataset

Z-General

ZA	Control Points

The third, fourth, fifth and sixth characters of the six-character feature code are a numeric value from 0000 through 9999. This value provides unique feature identification within categories yet allows flexibility. All features shall be identified by all six alphanumeric characters (for example, the feature “Road” is represented by TA0060). The block of feature code values from 8000 through 8999 has been reserved for special usage, e.g. usage within a particular agency or a group of users.

Due to hierarchical nature of geology and soil features, the third, fourth, fifth and sixth characters (the first through fourth numeric) represent the level of hierarchy of the feature within a particular subcategory. The first numeric represents the first level, the second numeric represents the second level, the third numeric represents the third level, and so on, if they are non-zeros. The value of the numeric is the feature number within that particular level. Zero value of the numeric means that the level is undefined.

For other categories of features (other than geology and soil), the numeric simply represents feature number within a particular subcategory.

4.2.2 Attributes

Attributes are used to describe characteristics of a feature. Each attribute is described by using attribute codes to represent the category of information. Attribute value format statements provide a computer interpretation for the attribute value data type (e.g. real, alphanumeric) and attribute values give quantitative/qualitative meaning to the attribute code. An attribute can be used by any feature, but care must be taken so that only meaningful attributes are chosen for a particular feature. For example, syntactically, an attribute “Lift Facilities” can be used with feature “Rail Line”, but semantically, the combination is useless. A list of possible attributes for each feature have been provided for the convenient of users.

4.2.2.1 Attribute codes

Each attribute is identified by a unique three character alphanumeric code. For example, the attribute “Road Service Area” has the code RDS and the attribute “Bridge Construction Material Type” has the code BMT.

4.2.2.2 Attribute values

There are two types of attribute values: coded and actual. A given attribute has only one type of value, which is specified in Annex B. Coded values may range from 0 to 999 and each of the value has its own meaning. Actual values are typically real measurements like height, width, date, etc. The units of measurement associated with an attribute are abbreviated according to the units of measurement codes as detailed in Annex B. A coded value attribute can be logically depicted as shown below:

Attribute Coded	Attribute Value Format	Attribute Value (coded in this case)
RDS	**I**	**2**

where

RDS represents Road Service Area;

I is the format of the coded value (in this case the format is that of a 4-byte integer); and

2 represents the coded value of the RUC attribute (in this case Rural).

For consistency and unless otherwise stated, the following coded values will be used where relevant:

0	is “Unknown”
996	is “None”
997	is “Mixed”
998	is “Not Applicable”
999	is “Others”

The block of coded attribute values from 600 through 899 has been reserved for special usage, e.g. usage within a particular agency or a group of users.

Actual value can have a format of either:

A	Alphanumeric,
I	Integer,
L	Lexical,
R	Real Number or
S	Structure Text.

For example, an Road (feature code TA0060) which has the route number “J23”, has four lanes, and is dual carriageway, would be attributed as follows:

Attribute code	Attribute value format	Attribute value (actual)
RTN (Route Number)	A	J23
LAN (Number of Lane)	I	4
CWT (Carriageway Type)	I	2

4.2.2.3 Range value attributes

Normally attributes are single valued text strings, numbers or enumerated values. However, at times it is necessary to assign values that fall within predetermined ranges. This can be done through an enumerated list that pre-defined the permitted ranges. For example, an attribute for height may be defined as:

0	< 10
1	10 - <20
2	20 - <30
3	30 - <40
4	> 40

4.3 Rules for documenting new features and attributes

This standard should be used during the development of specifications of digital application systems to support and satisfy the exchange of spatial information. However, this standard can be modified and updated in response to dynamic technology and evolving requirements. If this standard does not contain the required features, the standard allows for amendment to incorporate extensions and additions.

This sub clause lists the rules that are used to document the features and attributes contained in Annexes A and B. All extensions and additions shall also follow these rules:

a) feature and attribute names should be precise and unambiguous;

b) attribute values should be self-describing;

c) a feature and attribute should not have the same name;

d) a feature or attribute can have multiple names but only one definition;

e) a feature or attribute name should not be used in the description of the feature or attributes;

f) a feature name or definition should not specify if the feature is an area, point or line feature;

g) a feature should be relatively permanent;

h) a feature should not be duplicated between categories;

i) all attribute values are positive unless otherwise stated;

j) a boundary is just a spatial object or information that be considered a line feature and not a perimeter or solid surface of an area or spatial feature; and

k) the systematic structure of the coding schema should be permanent.

The features and attributes in this standard represent both spatial information and information which is considered important in geographic information system. Care should be taken to restrict additions to this standard to items of a stable nature only. Users should, for the development of their feature and attribute requirements, seek inter-organisation co-operation and co-ordination.

Annex A
(normative)

Feature Codes

A – AERONAUTICAL

AA – Air Space

Feature Code: **AA0010**
Feature Name: Air Space
Description: Designated airspace within which some or all aircraft may be subjected to air traffic control.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK), Airspace Identification Attribute (AIA), Air Space Category (ASC)

Feature Code: **AA0020**
Feature Name: Limited Activity Air Space
Description: Air space where activities must be confined because of their nature and/or where limitations may be imposed upon aircraft operations.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK), Airspace Use Limitations (AUL)

Feature Code: **AA0030**
Feature Name: Navigation Aid
Description: Any visual electronic device which provides point-to-point guidance information or position data.
Feature Class: Point
Possible Attribute: Name (NAM), Navigation Aid Type (NAT)

Feature Code: **AA0040**
Feature Name: Air Route
Description: A specific route designated for channelling the flow of traffic as necessary for the provision of air traffic service.
Feature Class: Line
Possible Attribute: Name (NAM), Air Route Segments Length (ALN), Air Route Usage (ARU)

AB – Aerodrome

Feature Code: **AB0010**
Feature Name: Aerodrome
Description: A defined area on land or water (including any buildings, installations and equipments) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code:	**AB0020**
Feature Name:	Airfield
Description:	A land aerodrome with limited facilities.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Airfield Type (APT)

Feature Code:	**AB0030**
Feature Name:	Aerodrome Control Tower
Description:	A high rise structure from where air traffic control service to aerodrome is provided.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0040**
Feature Name:	Aerodrome Beacon
Description:	A light, visible intermittently at all azimuths, used to indicate the location of an aerodrome from the air.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0050**
Feature Name:	Runway
Description:	A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Length (LEN)

Feature Code:	**AB0060**
Feature Name:	Runway Strip
Description:	A defined area including the runway and stopway, if provided, intended: a) To reduce the risk or damage to aircraft running off a runway and, b) To protect aircraft flying over it during take-off or landing operations.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Length (LEN)

Feature Code:	**AB0070**
Feature Name:	Stopway
Description:	A defined rectangular area at the end of a runway in the direction of take-off, which has been selected or prepared as a suitable area in which an aircraft can be stopped after an interrupted take-off.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**AB0080**
Feature Name:	Clearway
Description:	A rectangular area at the end of the take-off run, available, selected, or prepared as a suitable area over which an aircraft may make a portion of its initial climb to a specified height.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**AB0090**
Feature Name:	Approach Surface
Description:	A surface sloping up outwards located preceding threshold that defines the volume of upwards airspace that should be kept free from obstacles to protect aircraft in the final phase of approach.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Slope Gradient (SGR)

Feature Code:	**AB0100**
Feature Name:	Take-off Climb Surface
Description:	A surface sloping up outwards located beyond the end of the TORA or clearway that defines the volume of upwards airspace that should be kept free from obstacles to protect aircraft on take-off.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Slope Gradient (SGR)

Feature Code:	**AB0110**
Feature Name:	Transitional Surface
Description:	A surface around a runway strip sloping up outwards to the inner horizontal surface that defines the volume of upwards air space that should be kept free from obstacles to protect aircraft in their final phase of approach.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Slope Gradient (SGR), Width (WID)

Feature Code:	**AB0120**
Feature Name:	Inner Horizontal Surface
Description:	A horizontal surface around a runway strip above an aerodrome and its vicinity that defines the volume of upwards air space that should be kept free from obstacles to protect aircraft for visual circling prior to landing.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Z Orthometric (ZOR), Width (WID)

Feature Code:	**AB0130**
Feature Name:	Conical Surface
Description:	A surface sloping up outwards from the periphery of the inner horizontal surface that defines the volume of upwards air space that should be kept free from obstacles to protect aircraft for visual circling prior to landing.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Slope Gradient (SGR), Width (WID)

Feature Code:	**AB0140**
Feature Name:	Outer Horizontal Surface
Description:	A specified portion of a horizontal plane beyond the limit of the conical surface that defines the volume of upwards air space that should be kept free from obstacles to facilitate instrument approach procedures.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Z Orthometric (ZOR), Width (WID)

Feature Code:	**AB0150**
Feature Name:	Obstacle Free Zone (OFZ)
Description:	A volume of air space in the immediate vicinity of a precision approach runways defined by the inner approach, inner transitional and balked landing surfaces, which must be kept free from fixed objects.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**AB0160**
Feature Name:	Threshold
Description:	The beginning of that portion of the runway usable for landing.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**AB0170**
Feature Name:	Holding Point
Description:	A location on the manoeuvring area of an aerodrome at which an aircraft carries out an engine run-up or is held before entering a runway for take-off.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0180**
Feature Name:	Taxiway
Description:	A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**AB0190**
Feature Name:	Aircraft Parking Area
Description:	A specially prepared or selected part of an aerodrome within which aircraft may be parked.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**AB0200**
Feature Name:	Apron
Description:	A define area on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, and for fuelling, parking or maintenance.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**AB0210**
Feature Name:	Localiser
Description:	A device on the ground that provides azimuth guidance to a runway (runway centre line) to an approaching aircraft.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0220**
Feature Name:	Glideslope
Description:	A device on the ground that provides landing slope to an approaching aircraft.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0230**
Feature Name:	Radar
Description:	A radio detection device on the ground which provides information on range, azimuth and/or elevation of aircraft.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0240**
Feature Name:	Landing Directional Indicator
Description:	A device to indicate visually the direction currently designated for landing and take-off.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0250**
Feature Name:	Wind Direction Indicator
Description:	A visual device used to provide wind information.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0260**
Feature Name:	Obstacle
Description:	All fixed (whether temporary or permanent) and mobile objects, or part thereof, that are located on an area intended for the surface movement of aircraft or that extend above a defined surface intended to protect aircraft in flight.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0270**
Feature Name:	Obstruction Light
Description:	Lights mounted on or adjacent to obstructions or potential hazards to aircraft moving on the ground or in the navigable airspace, for the purpose of indicating the aircraft by night.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0280**
Feature Name:	Obstruction Marker
Description:	Markers on or adjacent to obstructions or potential hazards to aircraft moving on the ground or in the navigable airspace, for the purpose of indicating the aircraft by day.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**AB0290**
Feature Name:	Aeronautical Ground Light
Description:	Any light specially provided as an aid to air navigation, other than a light displayed on an aircraft.
Feature Class:	Point
Possible Attribute:	Name (NAM), Light Characteristic Category (LCC)

Feature Code:	**AB0300**
Feature Name:	Helicopter Landing Site
Description:	A place that is authorised to be used as an aerodrome for the purpose of the landing and taking-off of helicopter.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Landing Base Type (LBT)

Feature Code:	**AB0310**
Feature Name:	Final Approach and Take-off Area
Description:	An area of land or water associated with a helicopter-landing site, over which the final phase of the approach maneuver to hover or landing is completed and from which the take-off maneuver is commenced.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**AB0320**
Feature Name:	Touchdown and Lift Off Area
Description:	A load bearing area on which a helicopter may touch down or lift off.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

B – BUILT ENVIRONMENT

BA – Residential

Feature Code:	**BA0010**
Feature Name:	Residential Building
Description:	Building or property designated for use as premises for dwelling units or home.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Building Name (BA1), Building Number (BA2), Street Name (BA3), Post Code (BA4), State Name (BA5), Residential Building Type (RET), Number of Storey (NOS), Lift Facilities (LIF), Residential Usage (REU)

BB – Commercial

Feature Code:	**BB0010**
Feature Name:	Commercial Building
Description:	Building or property designated for use as premises for business related activities such as trading and services.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Building Name (BA1), Building Number (BA2), Street Name (BA3), Post Code (BA4), State Name (BA5), Commercial Building Type (CBT), Number of Storey (NOS), Lift Facilities (LIF), Commercial Building Usage (CBU)

Feature Code:	**BB0020**
Feature Name:	Billboard
Description:	A huge structure used for advertising panels
Feature Class:	Point
Possible Attribute:	Name (NAM)

BC – Industrial

Feature Code:	**BC0010**
Feature Name:	Industrial Building
Description:	Building or property designated for use as premises for manufacturing and processing related industry, repairing, servicing activities, foundries and warehousing/storage.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Building Name (BA1), Building Number (BA2), Street Name (BA3), Post Code (BA4), State Name (BA5), Industrial Building Type (IDT), Number of Storey (NOS), Lift Facilities (LIF), Category of Industry (IDC), Industry Permit Status (IDL), Industrial Planned Category (IDP), Industry Tax Status (IDS), Industrial Usage (IDU)

BD – Institutional

Feature Code:	**BD0010**
Feature Name:	Institutional Building
Description:	Building or premises designated specifically for use by government and its agencies, foreign embassies and other public purposes.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Building Name (BA1), Building Number (BA2), Street Name (BA3), Post Code (BA4), State Name (BA5), Institutional Building Type (INT), Institutional Usage (INU), Number of Storey (NOS), Lift Facilities (LIF), Institutional Category (INC)

BE – Educational

Feature Code:	**BE0010**
Feature Name:	Educational Building
Description:	Building or premises designated for education-related activities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Building Name (BA1), Building Number (BA2), Street Name (BA3), Post Code (BA4), State Name (BA5), Educational Building Type (EDT), Number of Storey (NOS), Educational Category (EDC), Educational Level (EDL), Educational Stream (EDS), Educational Boarding Facilities (EDB)

BF – Religious

Feature Code:	**BF0010**
Feature Name:	Building of Worship
Description:	A building or premises used as a place of worship, religious talks and other related activities
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Religious Building Usage (RBU)

BG – Recreational

Feature Code:	**BG0010**
Feature Name:	Stadium
Description:	An enclosed large open or closed roofed concrete building or premises with seats in tiers specifically built as a sports arena.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0020**
Feature Name:	Sport Complex
Description:	An area comprising more than one building or premises specifically built to be used for various sports purposes.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0030**
Feature Name:	Swimming Complex
Description:	An enclosed area comprising a few swimming pools including training and wading pools.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0040**
Feature Name:	Swimming Pool
Description:	An opened area comprising a few swimming pools including training and wading pools.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0050**
Feature Name:	Velodrome
Description:	An enclosed large open-roofed concrete building specifically built with walls slanting at a 45° and laid with certain graded wood for cycling competitions.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0060**
Feature Name:	Play Ground
Description:	An open turf premises used for recreational purposes and provided with game facilities for children.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Playground Services (PGS)

Feature Code:	**BG0070**
Feature Name:	Golf Course
Description:	A man-made landscaped open premises specifically built for playing golf.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0080**
Feature Name:	Polo Field
Description:	An area or premises for recreational activities of the polo sports fraternity.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0090**
Feature Name:	Park
Description:	A natural or man-made open area or ground equipped with leisure and recreational facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0100**
Feature Name:	Theme Park
Description:	A man-made recreational area or premises designed for sports and leisure activities based on a theme concept.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0110**
Feature Name:	Racing Circuit
Description:	A premise specifically designed and built for motor racing pursuits and competitions.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0120**
Feature Name:	Race Course
Description:	A premise specifically designed and built for horse racing pursuits and competitions.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0130**
Feature Name:	Golf Driving Range
Description:	A premise specifically designed and built with driving range for golf training.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BG0140**
Feature Name:	Zoo
Description:	An area with a collection of live animals usually for public display.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

BH – Cemetery

Feature Code:	**BH0010**
Feature Name:	Cemetery
Description:	A place for the burial of the dead.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Religious Cemetery Type (RCT)

Feature Code:	**BH0020**
Feature Name:	Crematorium
Description:	A building or premises used for cremating bodies of the deceased and where the ashes are collected.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **BH0030**
Feature Name: Memorial Park Cemetery
Description: A burial site designed and landscaped as a cemetery cum recreational park and operated on a commercial basis.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **BH0040**
Feature Name: Columbarium
Description: A building or premises to house the ashes of the deceased which are kept in urns.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

BJ – Built-Up

Feature Code: **BJ0010**
Feature Name: Taxi Terminal
Description: The end point of taxi routes including taxi parking area, administrative building and passenger facilities.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **BJ0020**
Feature Name: Bus Terminal
Description: The end point of bus routes including bus parking area, administrative building and passenger facilities.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **BJ0030**
Feature Name: Rail Terminal
Description: The end point of rail routes including administrative building and other facilities.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM), Rail Usage (RTU)

Feature Code: **BJ0040**
Feature Name: Integrated Transportation Terminal
Description: The end point of transportation routes including parking area, administrative building and passenger facilities.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **BJ0050**
Feature Name: Bus Depot
Description: An area designated for repairs and maintenance of buses.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0060**
Feature Name:	Rail Depot
Description:	An area designated for repairs and maintenance of trains.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Rail Usage (RTU)

Feature Code:	**BJ0070**
Feature Name:	Freight Depot
Description:	An area designated for receiving, storing and re-distributing of freight.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0080**
Feature Name:	Jetty Terminal
Description:	A jetty including its supporting structures and facilities for loading and unloading of cargo or passengers.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Jetty Category (JYC)

Feature Code:	**BJ0090**
Feature Name:	Power Station Complex
Description:	A power station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Power Station Type (PST)

Feature Code:	**BJ0100**
Feature Name:	Substation Complex
Description:	A substation including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Substation Category (SSC)

Feature Code:	**BJ0110**
Feature Name:	Reservoir Complex
Description:	A reservoir including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Reservoir Type (RVT) Custodian (CUS)

Feature Code:	**BJ0120**
Feature Name:	Water Treatment Plant Complex
Description:	A water treatment plant including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM),

Feature Code:	**BJ0130**
Feature Name:	Water Intake Complex
Description:	A water intake including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0140**
Feature Name:	Pump House Complex
Description:	A pump house including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Water Pump Category (WPC), Water Pump Type (WPT), Custodian (CUS), Pump House Usage (PHU)

Feature Code:	**BJ0150**
Feature Name:	Tank Complex
Description:	A tank including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Tank Type (TAT), Tank Usage (TAU)

Feature Code:	**BJ0160**
Feature Name:	Earth Satellite Complex
Description:	An earth satellite receiving station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0170**
Feature Name:	VSAT Station Complex
Description:	A VSAT station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0180**
Feature Name:	Cellular Radio Base Station Complex
Description:	A cellular radio base station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0190**
Feature Name:	Exchange Building Complex
Description:	An exchange building including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0200**
Feature Name:	Hill Station Complex
Description:	A hill station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0210**
Feature Name:	Radio Station Complex
Description:	A radio station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0220**
Feature Name:	Antenna Tower Complex
Description:	An antenna tower including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0230**
Feature Name:	Telecom Tower Complex
Description:	A telecom tower including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0240**
Feature Name:	Bin Point Complex
Description:	A bin point including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**BJ0250**
Feature Name:	Transfer Station Complex
Description:	A transfer station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Waste Type (WAT)

Feature Code:	**BJ0260**
Feature Name:	Secured Landfill Complex
Description:	A secured landfill including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Waste Type (WAT)

Feature Code:	**BJ0270**
Feature Name:	Waste Treatment Plant Complex
Description:	A waste treatment plant including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Waste Type (WAT)

Feature Code:	**BJ0280**
Feature Name:	Incineration Plant Complex
Description:	An incineration plant including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Waste Type (WAT)

Feature Code:	**BJ0290**
Feature Name:	Sewerage Treatment Plant Complex
Description:	A sewerage treatment plant including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Sewerage Treatment Plant Type (STT)

Feature Code:	**BJ0300**
Feature Name:	Sewerage Pump Station Complex
Description:	A sewerage pump station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0310**
Feature Name:	Pond Complex
Description:	A pond including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Pond Type (POT), Custodian (CUS), Pond Complex Usage (PCU)

Feature Code:	**BJ0320**
Feature Name:	City Gate Station Complex
Description:	A city gate station including its supporting structures and facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0330**
Feature Name:	Petrol Station
Description:	An area designated for filling of petrol.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0340**
Feature Name:	Residential Complex
Description:	An area consisting of one or more residential buildings and other supporting features.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0350**
Feature Name:	Industrial Complex
Description:	An area consisting of one or more industrial buildings and other supporting features.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0360**
Feature Name:	Commercial Complex
Description:	An area consisting of one or more commercial buildings and other supporting features.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM)

Feature Code:	**BJ0370**
Feature Name:	Parking Area
Description:	A designated area for parking of vehicles.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m²) (ARM), Parking Area Type (PAT)

Feature Code: **BJ0380**
Feature Name: Historical Site
Description: Site or area declared to be of historical or heritage significance.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (m²) (ARM), Historical Site Category (HSC)

D – DEMARCATION

DA – Topographic (Boundaries/Limits/Zones)

Feature Code: **DA0010**
Feature Name: International or Country Boundary
Description: A line defining the limit of a country.
Feature Class: Line
Possible Attribute: Name (NAM), Boundary Type (BDT)

Feature Code: **DA0020**
Feature Name: Country Coverage
Description: An area of land that falls within an international or country boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA0030**
Feature Name: State Boundary
Description: A line defining the limit of a state or federal territory.
Feature Class: Line
Possible Attribute: Name (NAM), Boundary Type (BDT)

Feature Code: **DA0040**
Feature Name: State Coverage
Description: An area of land that falls within a state boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA0050**
Feature Name: Division Boundary
Description: A line defining the limit of a division.
Feature Class: Line
Possible Attribute: Name (NAM), Boundary Type (BDT)

Feature Code: **DA0060**
Feature Name: Division Coverage
Description: An area of land that falls within a division boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA0070**
Feature Name: District or Jajahan Boundary Administrative
Description: A line defining the limit of a district or jajahan for administrative purpose.
Feature Class: Line
Possible Attribute: Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0075**
Feature Name:	District or Jajahan Boundary Land
Description:	A line defining the limit of a district or jajahan for land management purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0080**
Feature Name:	District or Jajahan Coverage Administrative
Description:	An area of land that falls within a district or jajahan boundary for administrative purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0085**
Feature Name:	District or Jajahan Coverage Land
Description:	An area of land that falls within a district or jajahan boundary for land management purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0090**
Feature Name:	Mukim Boundary Administrative
Description:	A line defining the limit of a mukim for administrative purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0095**
Feature Name:	Mukim Boundary Land
Description:	A line defining the limit of a mukim for land management purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0100**
Feature Name:	Mukim Coverage Administrative
Description:	An area of land that falls within a mukim boundary for administrative purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0105**
Feature Name:	Mukim Coverage Land
Description:	An area of land that falls within a mukim boundary for land management purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0110**
Feature Name:	Town Boundary Administrative
Description:	A line defining the limit of a town for administrative purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0115**
Feature Name:	Town Boundary Land
Description:	A line defining the limit of a town for land management purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0120**
Feature Name:	Town Coverage Administrative
Description:	An area of land that falls within a town boundary for administrative purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0125**
Feature Name:	Town Coverage Land
Description:	An area of land that falls within a town boundary for land management purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0130**
Feature Name:	Pekan Boundary Administrative
Description:	A line defining the limit of a pekan for administrative purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0135**
Feature Name:	Pekan Boundary Land
Description:	A line defining the limit of a pekan for land management purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0140**
Feature Name:	Pekan Coverage Administrative
Description:	An area of land that falls within a pekan boundary for administrative purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0145**
Feature Name:	Pekan Coverage Land
Description:	An area of land that falls within a pekan boundary for land management purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0150**
Feature Name:	Kampung Boundary Administrative
Description:	A line defining the limit of a kampong for administrative purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0155**
Feature Name:	Kampung Boundary Land
Description:	A line defining the limit of a kampung for land management purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0160**
Feature Name:	Kampung Coverage Administrative
Description:	An area of land that falls within a kampung boundary for administrative purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK), Kampung Coverage Type (KCT)

Feature Code:	**DA0165**
Feature Name:	Kampung Coverage Land
Description:	An area of land that falls within a kampung boundary for land management purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0170**
Feature Name:	Section Boundary Administrative
Description:	A line defining the limit of a section for administrative purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0175**
Feature Name:	Section Boundary Land
Description:	A line defining the limit of a section for land management purpose.
Feature Class:	Line
Possible Attribute:	Name (NAM), Boundary Type (BDT)

Feature Code:	**DA0180**
Feature Name:	Section Coverage Administrative
Description:	An area of land that falls within a section boundary for administrative purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0185**
Feature Name:	Section Coverage Land
Description:	An area of land that falls within a section boundary for land management purpose.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0190**
Feature Name:	Precinct Boundary
Description:	A line defining the limit of a precinct.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code: **DA0200**
Feature Name: Precinct Coverage
Description: An area of land that falls within a precinct boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0210**
Feature Name: Local Authority Boundary
Description: A line defining the limit of a local authority area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0220**
Feature Name: Local Authority Area
Description: An area of land that falls within a local authority boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0230**
Feature Name: Housing Estate Boundary
Description: A line defining the limit of a housing estate.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0240**
Feature Name: Housing Estate
Description: An area of land that falls within a housing estate boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0250**
Feature Name: Census Enumeration Block Boundary
Description: A line gazetted as the limit of a census enumeration block.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0260**
Feature Name: Census Enumeration Block
Description: An area of land that falls within a census enumeration block boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0270**
Feature Name: Parliamentary Electoral Boundary
Description: A line gazetted as the limit of a parliamentary electoral area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0280**
Feature Name: Parliamentary Electoral Area
Description: An area of land that falls within a parliamentary electoral boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km^2) (ARK)

Feature Code: **DA0290**
Feature Name: State Electoral Boundary
Description: A line gazetted as the limit of a state electoral area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0300**
Feature Name: State Electoral Area
Description: An area of land that falls within a state electoral boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA0310**
Feature Name: Postcode Boundary
Description: A line defining the limit of a postcode area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0320**
Feature Name: Postcode Area
Description: An area of land that falls within a postcode boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA0330**
Feature Name: Police District Boundary
Description: A line defining the limit of a police district.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0340**
Feature Name: Police District Area
Description: An area of land that falls within a police district boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA0350**
Feature Name: Fire and Rescue Station Boundary
Description: A line defining the limit of a fire and rescue service station.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0360**
Feature Name: Fire and Rescue Station Area
Description: An area of land that falls within a fire and rescue station boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA0370**
Feature Name: Medical Emergency Station Boundary
Description: A line defining the limit of a medical emergency station.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code:	**DA0380**
Feature Name:	Medical Emergency Station Area
Description:	An area of land that falls within a medical emergency station boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA0390**
Feature Name:	Agriculture Land Scheme Boundary
Description:	A line defining the limit of an agricultural land scheme.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0400**
Feature Name:	Agriculture Land Scheme Area
Description:	An area of land that falls within an agricultural land scheme boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**DA0410**
Feature Name:	Trigonometrical Station Boundary
Description:	A line defining the limit of a trigonometrical station area.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0420**
Feature Name:	Trigonometrical Station Area
Description:	An area of land that falls within a trigonometrical station boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**DA0430**
Feature Name:	Irrigation Scheme Boundary
Description:	A line either gazetted or not, defining the limit of an irrigation scheme.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0440**
Feature Name:	Irrigation Scheme Area
Description:	An area of land either gazetted or not, that falls within an irrigation scheme boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH), Irrigation Scheme Category (IGC), Irrigation Scheme Type (IGT)

Feature Code:	**DA0450**
Feature Name:	Animal Husbandry Boundary
Description:	A line defining the limit of an animal husbandry area.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0460**
Feature Name:	Animal Husbandry Area
Description:	An area of land that falls within an animal husbandry boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**DA0470**
Feature Name:	Transmission Line ROW Boundary
Description:	A line defining the limit of a transmission line ROW.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0480**
Feature Name:	Transmission Line ROW Area
Description:	An area of land that falls within a transmission line ROW boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Power Line Category (PLA), Power Line Characteristics (PLC), Voltage (VLT)

Feature Code:	**DA0490**
Feature Name:	Landuse Zone Boundary
Description:	A line defining the limit of a landuse zone.
Feature Class:	Line
Possible Attribute:	Name (NAM), Zoning Category (ZOC)

Feature Code:	**DA0500**
Feature Name:	Landuse Zone
Description:	An area of land that falls within a landuse zone boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH), Zoning Category (ZOC)

Feature Code:	**DA0510**
Feature Name:	Drainage Reserve Boundary
Description:	A line gazetted as the limit of a drainage reserve.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0515**
Feature Name:	Agricultural Drainage Reserve Boundary
Description:	A line gazetted as the limit of a drainage reserve where agricultural drainage infrastructures has been provided.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0520**
Feature Name:	Drainage Reserve Area
Description:	An area of land that falls within a drainage reserve boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH), Authority (AUT)

Feature Code: **DA0525**
Feature Name: Agricultural Drainage Reserve Area
Description: An area of land that falls within a drainage reserve boundary where agricultural drainage infrastructures has been provided.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH), Authority (AUT)

Feature Code: **DA0530**
Feature Name: Park Reserve Boundary
Description: A line gazetted as the limit of a park reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0540**
Feature Name: Park Reserve Area
Description: An area of land, marine, estuarine, or freshwater that falls within a park reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0550**
Feature Name: Grazing Reserve Boundary
Description: A line gazetted as the limit of a grazing reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0560**
Feature Name: Grazing Reserve Area
Description: An area of land that falls within a grazing reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0570**
Feature Name: Forest Reserve Boundary
Description: A line gazetted as the limit of a forest reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0580**
Feature Name: Forest Reserve Area
Description: An area of land that falls within a forest reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0590**
Feature Name: Water Catchment Reserve Boundary
Description: A line gazetted as the limit a water catchment reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0600**
Feature Name: Water Catchment Reserve Area
Description: An area of land that falls within a water catchment reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0610**
Feature Name: Wildlife Reserve Boundary
Description: A line gazetted as the limit a wildlife reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0620**
Feature Name: Wildlife Reserve Area
Description: An area of land that falls within a wildlife reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0630**
Feature Name: Game Reserve Boundary
Description: A line gazetted as the limit of a game reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0640**
Feature Name: Game Reserve Area
Description: An area of land that falls within a game reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **DA0650**
Feature Name: Sanctuary Reserve Boundary
Description: A line defining the limit of a sanctuary reserve.
Feature Class: Line
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0660**
Feature Name: Sanctuary Reserve
Description: An area of land that falls within a sanctuary reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0670**
Feature Name: Agriculture Reserve Boundary
Description: A line gazetted as the limit of an agricultural reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0680**
Feature Name: Agriculture Reserve Area
Description: An area of land that falls within an agricultural reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0690**
Feature Name: Aquaculture Reserve Boundary
Description: A line gazetted as the limit of an aquaculture reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0700**
Feature Name: Aquaculture Reserve Area
Description: An area of land that falls within an aquaculture reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0710**
Feature Name: Malay Reserve Boundary
Description: A line gazetted as the limit of a Malay reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0720**
Feature Name: Malay Reserve Area
Description: An area of land that falls within a Malay reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0730**
Feature Name: Government Reserve Boundary
Description: A line gazetted as the limit of a government reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0740**
Feature Name: Government Reserve Area
Description: An area of land that falls within a government reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0750**
Feature Name: Firing Range Reserve Boundary
Description: A line gazetted as the limit of a firing range reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0760**
Feature Name: Firing Range Reserve Area
Description: An area of land that falls within a firing range reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA0770**
Feature Name: Road Reserve Boundary
Description: A line gazetted as the limit of a road reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code:	**DA0780**
Feature Name:	Road Reserve Area
Description:	An area of land that falls within a road reserve boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**DA0790**
Feature Name:	Rail Reserve Boundary
Description:	A line gazetted as the limit of a rail reserve.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0800**
Feature Name:	Rail Reserve Area
Description:	An area of land that falls within a rail reserve boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Rail Usage (RTU)

Feature Code:	**DA0810**
Feature Name:	Oil and Gas Pipeline Reserve Boundary
Description:	A line gazetted as the limit of an oil and gas pipeline reserve.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA0820**
Feature Name:	Oil and Gas Pipeline Reserve Area
Description:	An area of land that falls within an oil and gas pipeline reserve boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**DA0830**
Feature Name:	Irrigation Reserve Boundary
Description:	A line gazetted as the limit of an irrigation reserve where irrigation infrastructures have been provided.
Feature Class:	Line
Possible Attribute:	Name (NAM

Feature Code:	**DA0840**
Feature Name:	Irrigation Reserve Area
Description:	An area of land that falls within an irrigation reserve where irrigation infrastructures have been provided.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Irrigation Scheme Category (IGC), Irrigation Scheme Type (IGT)

Feature Code:	**DA0850**
Feature Name:	River Reserve Boundary
Description:	A line gazetted as the limit of a river reserve.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code: **DA0860**
Feature Name: River Reserve Area
Description: An area of land that falls within a river reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **DA0870**
Feature Name: Aborigine Reserve Boundary
Description: A line gazetted as the limit of an aborigine reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0880**
Feature Name: Aborigine Reserve Area
Description: An area of land that falls within an aborigine reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **DA0890**
Feature Name: Royal Reserve Boundary
Description: A line gazetted as the limit of a royal reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0900**
Feature Name: Royal Reserve Area
Description: An area of land that falls within a royal reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **DA0910**
Feature Name: Cemetery Reserve Boundary
Description: A line gazetted as the limit of a cemetery reserve.
Feature Class: Line
Possible Attribute: Name (NAM), Religious Burial Ground Type (RCT)

Feature Code: **DA0920**
Feature Name: Cemetery Reserve Area
Description: An area of land that falls within a cemetery reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM), Religious Burial Ground Type (RCT)

Feature Code: **DA0930**
Feature Name: Clinic Reserve Boundary
Description: A line gazetted as the limit of a clinic reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0940**
Feature Name: Clinic Reserve Area
Description: An area of land that falls within a clinic reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM), Clinic Service Type (SCT)

Feature Code: **DA0950**
Feature Name: Hospital Reserve Boundary
Description: A line gazetted as the limit of a hospital reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0960**
Feature Name: Hospital Reserve Area
Description: An area of land that falls within a hospital reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **DA0970**
Feature Name: School Reserve Boundary
Description: A line gazetted as the limit of a school reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA0980**
Feature Name: School Reserve Area
Description: An area of land that falls within a school reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **DA0990**
Feature Name: Army Reserve Boundary
Description: A line gazetted as the limit of an army reserve.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA1000**
Feature Name: Army Reserve Area
Description: An area of land that falls within an army reserve boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **DA1010**
Feature Name: Reserve Land Boundary
Description: A line gazetted as the limit of a Sarawak Reserve Land area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA1020**
Feature Name: Sarawak Reserve Land Area
Description: An area of land that falls within a reserve land boundary in Sarawak.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km^2) (ARK)

Feature Code:	**DA1030**
Feature Name:	Mixed Zone Land Boundary
Description:	A line gazetted as the limit of a Sarawak Mixed Zone Land area.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1040**
Feature Name:	Mixed Zone Land Area
Description:	An area of land that falls within a mixed zone land boundary in Sarawak.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**DA1050**
Feature Name:	Native Land Boundary
Description:	A line gazetted as the limit of a native land in Sarawak, Sabah and Labuan.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1060**
Feature Name:	Native Land Area
Description:	An area of land that falls within a native land boundary in Sarawak, Sabah and Labuan.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**DA1070**
Feature Name:	Native Customary Land Boundary
Description:	A line gazetted as the limit of a Sarawak Native Customary Land area.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1080**
Feature Name:	Native Customary Land Area
Description:	An area of land that falls within a native customary land boundary in Sarawak.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**DA1090**
Feature Name:	Interior Land Boundary
Description:	A line gazetted as the limit of an Interior Land area.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DA1100**
Feature Name:	Interior Land Area
Description:	An area of land that falls within an interior land boundary.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code: **DA1110**
Feature Name: Sarawak Town Land Boundary
Description: A line defining the limit of a Sarawak Town Land area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA1120**
Feature Name: Sarawak Town Land Area
Description: An area of land that falls within a Sarawak Town Land boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA1130**
Feature Name: Sarawak Suburban Land Boundary
Description: A line defining the limit of a Sarawak Suburban Land area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA1140**
Feature Name: Sarawak Suburban Land Area
Description: An area of land that falls within a Sarawak Suburban Land boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA1150**
Feature Name: Sarawak Country Land Boundary
Description: A line defining the limit of a Sarawak Country Land area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA1160**
Feature Name: Sarawak Country Land Area
Description: An area of land that falls within a Sarawak Country Land boundary.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

Feature Code: **DA1170**
Feature Name: Native Timber Reserve Boundary
Description: A line gazetted as the limit of a native timber reserve under the Sabah state legislation.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DA1180**
Feature Name: Native Timber Reserve Area
Description: An area of land that falls within a native timber reserve boundary under the Sabah state legislation.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (km²) (ARK)

DB – Maritime

Feature Code:	**DB0010**
Feature Name:	Baseline
Description:	A line from which the outer limits of a territorial sea and certain other outer limits are measured.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0020**
Feature Name:	Continental Shelf Boundary
Description:	A line defining the limit of a continental shelf.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0030**
Feature Name:	Continental Shelf
Description:	The continental shelf of a coastal state (country) comprises the sea-bed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental shelf margin, or to a distance of 200 nautical miles from the baselines where the outer edge of the continental margin does not extend up to that distance.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**DB0040**
Feature Name:	Exclusive Economic Zone Boundary
Description:	A line defining the limit of an Exclusive Economic Zone.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0050**
Feature Name:	Exclusive Economic Zone
Description:	An area beyond and adjacent to the territorial sea not exceeding 200 nautical miles from the baseline under which a coastal state (country) has certain right and jurisdiction.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**DB0060**
Feature Name:	Contiguous Zone Boundary
Description:	A line defining the limit of a contiguous zone.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0070**
Feature Name:	Contiguous Zone
Description:	A zone not exceeding 24 nautical miles from the baseline where the coastal state (country) may exercise certain controls.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**DB0080**
Feature Name:	Territorial Water Boundary
Description:	A line defining a territorial water.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0090**
Feature Name:	Territorial Water
Description:	A belt of water of a defined breadth but not exceeding 12 nautical miles measured seaward from a territorial sea baseline.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**DB0100**
Feature Name:	State Territorial Water Boundary
Description:	A line defining the limit of a state territorial water.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0110**
Feature Name:	State Territorial Water
Description:	A belt of water of a defined breadth but not exceeding 3 nautical miles measured seaward from a territorial sea baseline where the adjacent state has exclusive rights.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**DB0120**
Feature Name:	Internal Water Boundary
Description:	A line defining the limit of an internal water.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0130**
Feature Name:	Internal Water
Description:	Waters on the landward side of the baseline of a territorial sea and landlocked waters within a state.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**DB0140**
Feature Name:	Fishing Zone Boundary
Description:	A line defining the limit of a fishing zone.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DB0150**
Feature Name:	Fishing Zone
Description:	The offshore zone in which fishing rights and management are held by coastal nation or an area designated for fishing within the EEZ limits, in accordance to the vessel size, power of engine, type of gears, and category of vessel's owner.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code: **DB0160**
Feature Name: Maritime Firing Boundary
Description: A line defining the limit of a firing area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DB0170**
Feature Name: Maritime Firing Area
Description: A water area in which firing exercise is frequently carried out by the armed forces.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **DB0180**
Feature Name: Harbour Authority Boundary
Description: A line defining the limit of a harbour authority area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DB0190**
Feature Name: Harbour Authority Area
Description: An area around a harbour under the authority the harbour.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **DB0200**
Feature Name: Port Authority Boundary
Description: A line defining the limit of a port authority area.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DB0210**
Feature Name: Port Authority Area
Description: An area surrounding a port under the authority of the port.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

DC – Cadastral

Feature Code: **DC0010**
Feature Name: State Land Boundary
Description: A line defining the limit of a state land.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **DC0020**
Feature Name: State Land
Description: All land in a state, including river bed, foreshore and sea bed as is within the territories of the state or the limits of territorial waters, other than alienated land, reserved land and mining land.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**DC0030**
Feature Name:	Land Parcel or Lot Boundary
Description:	A line defining the limit of a parcel or lot.
Feature Class:	Line
Possible Attribute:	Name (NAM), Survey Status (SUS)

Feature Code:	**DC0040**
Feature Name:	Land Parcel or Lot
Description:	A piece of land allotted by a state.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Survey Status (SUS)

Feature Code:	**DC0050**
Feature Name:	Strata Parcel Boundary
Description:	A line defining the limit of a strata parcel.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DC0060**
Feature Name:	Strata Parcel
Description:	Sub-division of any building having two or more storeys on alienated land held as one lot under Final Title into parcels each to be held under a separate Strata Title.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**DC0070**
Feature Name:	Stratum Parcel Boundary
Description:	A line defining the limit of a stratum parcel.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DC0080**
Feature Name:	Stratum Parcel
Description:	Underground land parcel as specified under Part Five (A) Section 92(A) of the National Land Code 1965.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**DC0090**
Feature Name:	Strata Accessory Parcel Boundary
Description:	A line defining the limit of a strata accessory parcel.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DC0100**
Feature Name:	Strata Accessory Parcel
Description:	Any parcel shown on a strata plan which is used in conjunction with a strata parcel.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**DC0110**
Feature Name:	Common Property Boundary
Description:	A line defining the limit of a common property.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**DC0120**
Feature Name:	Common Property
Description:	Any area not comprised in any strata parcel, including its accessory, or any provisional block as shown in an approved strata plan.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

G – GEOLOGY

GA - Geolithology

Feature Code:	**GA1000**
Feature Name:	Surficial deposit
Description:	Unconsolidated deposit occurring on the earth's surface.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Surficial Deposit Type (SDT), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS)

Feature Code:	**GA1100**
Feature Name:	Alluvium
Description:	Detrital materials deposited by running water.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS)

Feature Code:	**GA1200**
Feature Name:	Older alluvium (high terrace)
Description:	Unconsolidated or moderately consolidated sedimentary deposited on the higher level.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS)

Feature Code:	**GA1300**
Feature Name:	Colluvium
Description:	Loose-heterogenous incoherent material deposited by unconcentrated surface runoff or sheet erosion, usually at the base of a slope.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Texture (TEX)

Feature Code:	**GA1400**
Feature Name:	Raised beach
Description:	Ancient beach occurring above the present shore line chararterised by unconsolidated or moderately consolidated sedimentary deposited.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS)

Feature Code:	**GA1500**
Feature Name:	Clay
Description:	Loose, earthy, extremely fine-grained, natural sediment or soft rock composed primarily of clay-size or colloidal particles.
Feature Class:	Polygon
Possible Attribute:	Clay Type (CYT), Texture (TEX)

Feature Code:	**GA1600**
Feature Name:	Silt
Description:	Unconsolidated or moderately consolidated sedimentary deposit consisting essentially of fine-grained clastics.
Feature Class:	Polygon
Possible Attribute:	Silt Type (SIT), Texture (TEX)

Feature Code:	**GA1700**
Feature Name:	Sand
Description:	Unconsolidated or moderately consolidated sedimentary deposit consisting essentially of medium-grained clastics.
Feature Class:	Polygon
Possible Attribute:	Sand Type (SAT), Texture (TEX), Sand Composition (SCO)

Feature Code:	**GA1800**
Feature Name:	Gravel
Description:	Loose accumulation of rock fragments associated with streams or beaches, composed predominantly of more or less rounded pebbles and small stones mixed with sand.
Feature Class:	Polygon
Possible Attribute:	Gravel Type (GRT), Texture (TEX)

Feature Code:	**GA1900**
Feature Name:	Peat
Description:	Unconsolidated deposit of semi carbonised plant remains.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**GA2000**
Feature Name:	Sedimentary Rock
Description:	Rocks resulting from the consolidation of loose sediments.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS), Sedimentary Rock Type (SRT)

Feature Code:	**GA2100**
Feature Name:	Argillaceous Rock
Description:	Sedimentary rocks composed of higher proportion of clay minerals.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS), Argillaceous Rock Type (ALT)

Feature Code:	**GA2200**
Feature Name:	Arenaceous Rock
Description:	Sedimentary rocks composed of higher proportion of sand minerals.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS), Arenaceous Rock Type (ART)

Feature Code:	**GA2300**
Feature Name:	Rudaceous Rock
Description:	Sedimentary rocks composed of fragments coarser than sand.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS), Rudaceous Rock Type (RRL)

Feature Code:	**GA2400**
Feature Name:	Calcareous Rock
Description:	Sedimentary rocks composed of higher proportion of calcium or magnesium carbonates.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS), Calcareous Rock Type (CRT)

Feature Code:	**GA2500**
Feature Name:	Sedimentary Others
Description:	Other sedimentary rocks.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Fossil (FOS), Sedimentary Others Type (SLT)

Feature Code:	**GA3000**
Feature Name:	Igneous Rocks
Description:	Rocks that solidified from molten or partly molten magma.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Igneous Rock Type (IRT)

Feature Code:	**GA3100**
Feature Name:	Volcanic Acid Rocks
Description:	Rocks ejected by volcanic activity of acidic composition.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Volcanic Acid Rocks Type (VAT), Volcanic Form (VOF)

Feature Code:	**GA3200**
Feature Name:	Volcanic Intermediate Rocks
Description:	Rocks ejected by volcanic activity of intermediate composition.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Volcanic Intermediate Rocks Type (VIT), Volcanic Form (VOF)

Feature Code:	**GA3300**
Feature Name:	Volcanic Basic Rocks
Description:	Rocks ejected by volcanic activity of basic composition.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Volcanic Basic Rocks Type (VBT), Volcanic Form (VOF)

Feature Code:	**GA3400**
Feature Name:	Plutonic Acid Rocks
Description:	Igneous rocks that contain high percentage of silica.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Plutonic Acid Rocks Type (PAR)

Feature Code:	**GA3500**
Feature Name:	Plutonic Intermediate Rocks
Description:	Igneous rocks that contain medium percentage of silica.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Plutonic Intermediate Rocks Type (PIT)

Feature Code:	**GA3600**
Feature Name:	Plutonic Basic Rocks
Description:	Igneous rocks that contain low percentage of silica.
Feature Class:	Polygon
Possible Attribute.	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Plutonic Basic Rocks Type (PBT)

Feature Code:	**GA3700**
Feature Name:	Plutonic Ultrabasic Rocks
Description:	Igneous rocks that contain little or no silica.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Plutonic Ultrabasic Rocks Type (PUB)

Feature Code:	**GA4000**
Feature Name:	Metamorphic Rocks
Description:	Rocks formed by changes of temperature, pressure and chemical environment.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Metamorphic Rock Group (MRG)

Feature Code:	**GA4100**
Feature Name:	Regional Metamorphic Rocks
Description:	Sedimentary rock that shows evidence of having been subjected to metamorphism regionally.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Regional Metamorphic Rocks Type (RMT)

Feature Code:	**GA4200**
Feature Name:	Contact Metamorphic Rocks
Description:	Sedimentary rock that shows evidence of having been subjected to metamorphism by contact.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Contact Metamorphic Rocks Type (CMT)

Feature Code:	**GA4300**
Feature Name:	Dynamic Metamorphic Rocks
Description:	Sedimentary rock that shows evidence of having been subjected to metamorphism by dynamic.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Age in Million Years (AMY), Age in Period (APE), Dynamic Metamorphic Rocks Type (DLT)

Feature Code:	**GA4400**
Feature Name:	Meteorites and Tektites
Description:	Solid mass in the form of rock, metal or mixture of both that come from space and reached the earth.
Feature Class:	Point
Possible Attribute:	Outer space material type (OSM)

GB - Mineral

Feature Code:	**GB1000**
Feature Name:	Minerals
Description:	Location of a concentration of mineral that is considered to be valuable.
Feature Class:	Point, polygon
Possible Attribute:	Mineral Group (MIG), Mineral Category (MIC)

Feature Code:	**GB1100**
Feature Name:	Metallic Minerals
Description:	Location of metallic mineral mineralisation. Metallic minerals are minerals normally with a high specific gravity and metallic lustre.
Feature Class:	Point, Polygon
Possible Attribute:	Metallic Minerals Type (MTY), Mineral Category (MIC)

Feature Code:	**GB1110**
Feature Name:	Precious Metals
Description:	Location of precious metals mineralisation.
Feature Class:	Point, Polygon
Possible Attribute:	Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1120**
Feature Name: Base Metals
Description: Location of base metals mineralisation, commonly refer to a group of metals that include copper, lead and zinc.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1130**
Feature Name: Light Metals
Description: Location of light metals mineralisation.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1140**
Feature Name: Iron & Ferrous Alloy
Description: Location of iron and ferrous alloy mineralisation.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1150**
Feature Name: Tin & Associated Minerals
Description: Location of tin & associated minerals mineralisation.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1160**
Feature Name: Rare Metals
Description: Location of rare metals mineralisation.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1200**
Feature Name: Non-Metallic Minerals
Description: Location of non-metallic mineralisation.
Feature Class: Point, Polygon
Possible Attribute: Mineral Group (MIG), Mineral Category (MIC)

Feature Code: **GB1210**
Feature Name: Clay-Based Minerals
Description: Location of potential clay-based minerals.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1220**
Feature Name: Sand-Based Minerals
Description: Location of potential sand-based minerals.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code: **GB1230**
Feature Name: Rock-Based Minerals
Description: Location of potential rock-based minerals.
Feature Class: Point, Polygon
Possible Attribute: Mineral Name (MIN), Mineral Category (MIC)

Feature Code:	**GB1240**
Feature Name:	Dimension Stone
Description:	Location of potential site for extraction of dimension stone.
Feature Class:	Point, Polygon
Possible Attribute:	Mineral Name (MIN), Mineral Category (MIC)

Feature Code:	**GB1300**
Feature Name:	Energy Minerals
Description:	Location of potential site for energy minerals.
Feature Class:	Point, polygon
Possible Attribute:	Mineral Name (MIN), Mineral Category (MIC)

GC – Fossils

Feature Code:	**GC1000**
Feature Name:	Fossil
Description:	Any remains, traces, or imprint of plants or animals that has been preserved.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Fossil Type (FOT), Age in Period (APE), Fossil Habitat (FOH)

Feature Code:	**GC1100**
Feature Name:	Fauna
Description:	Preserved animal fossils.
Feature Class:	Point
Possible Attribute:	Name (NAM), Field Number (FNO), Registered Number (RNO), Age in Period (APE), Fossil Habitat (FOH)

Feature Code:	**GC1200**
Feature Name:	Flora
Description:	Preserved plant fossils.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Name (NAM), Age in Period (APE), Fossil Habitat (FOH)

Feature Code:	**GC1300**
Feature Name:	Trace
Description:	Preserved fossil imprints.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Name (NAM), Age in Period (APE), Fossil Habitat (FOH)

Feature Code:	**GC1400**
Feature Name:	Fossil mixed
Description:	Preserved animal and plant fossils.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Name (NAM), Age in Period (APE), Fossil Habitat (FOH)

GD- Mining

Feature Code:	**GD1000**
Feature Name:	Mining Lease Area
Description:	An area authorised for mining or mining tenement.
Feature Class:	Point, Polygon
Possible Attribute:	Mines Type (MNT), Mineral Group (MIG), Custodian (CUS), Date Start (DAS), Date End (DAE)

Feature Code:	**GD2000**
Feature Name:	Mines
Description:	An authorised area where minerals are worked.
Feature Class:	Point, Polygon
Possible Attribute:	Mines Type (MNT), Operational Status (OPS)

Feature Code:	**GD2100**
Feature Name:	Mine Pit
Description:	Actual excavation for mineral extraction site on the surface.
Feature Class:	Point, Polygon
Possible Attribute:	Mineral Group (MIG), Mineral Type (MTP), Mine Pit Type (MPT)

Feature Code:	**GD2200**
Feature Name:	Mine Tailings Area
Description:	The storage area for gangue and other refused material resulting from the washing, concentration or treatment of ground ore.
Feature Class:	Point, Polygon
Possible Attribute:	Mining Tail Area Type (MTT)

Feature Code:	**GD3000**
Feature Name:	Quarry Authorised Area
Description:	An area authorised for quarry activity.
Feature Class:	Point, Polygon
Possible Attribute:	Quarry Authorised Type (QAT), Custodian (CUS), Date Start (DAS), Date End (DAE)

Feature Code:	**GD3100**
Feature Name:	Quarry Site
Description:	Area designated for quarry operations.
Feature Class:	Point, Polygon
Possible Attribute:	Quarry Use (QUU), Rock Type (RKT), Operational Status (OPS)

Feature Code:	**GD3110**
Feature Name:	Quarry Pit
Description:	Area within the quarry site where the rocks are actually extracted.
Feature Class:	Point, Polygon
Possible Attribute:	Quarry Use (QUU), Rock Type (RKT), Quarry Type (QUT)

Feature Code:	**GD4000**
Feature Name:	Extraction Permit Area
Description:	Area authorised for clay and sand extraction.
Feature Class:	Point, Polygon
Possible Attribute:	Earth material Type (EMT), Custodian (CUS), Date Start (DAS), Date End (DAE)

Feature Code:	**GD5000**
Feature Name:	Stockpile
Description:	A designated area for storing broken ore or material accumulated in a heap on the surface, pending treatment or shipment.
Feature Class:	Polygon
Possible Attribute:	Stockpile Type (STY)

Feature Code:	**GD6000**
Feature Name:	Rehabilitational Area
Description:	An area where the land is subjected for rehabilitation after mining activities ceased.
Feature Class:	Point, Polygon
Possible Attribute:	Mines Type (MNT)

GE – Exploration

Feature Code:	**GE1000**
Feature Name:	Mineral Exploration Block
Description:	An area designated for mineral exploration.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Custodian (CUS), Mineral Exploration Block Type (MET), Date Start (DAS), Date End (DAE), Mineral Group (MIG), Mineral Name (MIN)

Feature Code:	**GE1100**
Feature Name:	Geological Mapping Area
Description:	An area where various rock types and geological features are mapped.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Custodian (CUS), Geologist(s) (GEO), Date Start (DAS), Date End (DAE), Work Status (WOS), Report Status (RES), Coverage Percentage (PCC)

Feature Code:	**GE1200**
Feature Name:	Geochemical Survey Area
Description:	An area where geochemical investigation is carried out to search for minerals or environmental studies.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Custodian (CUS), Geologist(s) (GEO), Date Start (DAS), Date End (DAE), Work Status (WOS), Report Status (RES), Coverage Percentage (PCC), Survey Phase (SVP), Geochemical Survey Area Purpose (GEP)

Feature Code:	**GE1210**
Feature Name:	Geochemical Sample Point
Description:	Sites where samples are taken for chemical analysis.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Geochemical Sample Point Type (GPT), Survey Phase (SVP)

Feature Code:	**GE1211**
Feature Name:	Sample Point Rock
Description:	Rock sampling location.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Collector (COL), Date Start (DAS), Date End (DAE), Survey Phase (SVP)

Feature Code:	**GE1212**
Feature Name:	Sample Point Soil
Description:	Soil sampling location.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Collector (COL), Date Start (DAS), Date End (DAE), Survey Phase (SVP)

Feature Code:	**GE1213**
Feature Name:	Sample Point Silt
Description:	Silt sampling location.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Collector (COL), Date Start (DAS), Date End (DAE), Survey Phase (SVP)

Feature Code:	**GE1214**
Feature Name:	Sample Point Stream Concentrate
Description:	Stream concentrate sampling location.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Collector (COL), Date Start (DAS), Date End (DAE), Survey Phase (SVP)

Feature Code:	**GE1215**
Feature Name:	Sample Point Stream Water
Description:	Stream water sampling location.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Collector (COL), Date Start (DAS), Date End (DAE), Survey Phase (SVP)

Feature Code:	**GE1300**
Feature Name:	Geophysical Survey Area
Description:	An area where the search for minerals, groundwater and geological features is done using geophysical method.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Custodian (CUS), Geologist(s) (GEO), Date Start (DAS), Date End (DAE), Work Status (WOS), Report Status (RES), Coverage Percentage (PCC), Geophysical Method (GPM)

Feature Code:	**GE1310**
Feature Name:	Geophysical Survey Line
Description:	A line where the geophysical measurements are made.
Feature Class:	Line
Possible Attribute:	Name (NAM), Custodian (CUS), Person (PER), Date Start (DAS), Date End (DAE), Report Status (RES), Geophysical Method (GPM)

Feature Code:	**GE1320**
Feature Name:	Geophysical Survey Station
Description:	A point where the geophysical measurement is made.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Name (NAM), Custodian (CUS), Person (PER), Date Start (DAS), Date End (DAE), Report Status (RES), Geophysical Method (GPM)

Feature Code:	**GE1400**
Feature Name:	Exploration Hole
Description:	Location of holes made for downhole logging and sample collection.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Collector (COL), Survey Phase (SVP), Mineral Type (MTP), Drill Method (DRM), Depth (DPT), Record Number (REC), Exploration Holes Purpose (EHP)

Feature Code:	**GE1500**
Feature Name:	Anomaly Area
Description:	Areas where anomalies are identified.
Feature Class:	Polygon
Possible Attribute:	Anomaly Type (ANT), Anomaly Area Element (AAE), Anomaly Elevation (AEL)

Feature Code:	**GE1510**
Feature Name:	Mineral Anomaly
Description:	Areas interpreted to have a potential for mineralisation.
Feature Class:	Polygon
Possible Attribute:	Anomaly Number (ANN), Priority (PRN), Mineral Anomaly Elements (MAE)

Feature Code:	**GE2000**
Feature Name:	Geological Remote Sensing Area
Description:	An area where remote sensing is carried out for geological mapping and mineral exploration.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Custodian (CUS), Geologist(s) (GEO), Date Start (DAS), Date End (DAE), Work Status (WOS), Report Status (RES), Coverage Percentage (PCC)

GF - Geological Features

Feature Code:	**GF1100**
Feature Name:	Faulting
Description:	Large fracture in rock where movement has taken place.
Feature Class:	Line
Possible Attribute:	Faulting (FTY), Geological Accuracy (GAC), Strike (STR), Dip (DIP)

Feature Code:	**GF1200**
Feature Name:	Folding
Description:	The formation of fold in rocks.
Feature Class:	Line
Possible Attribute:	Folding Type (FLT), Geological Accuracy (GAC), Fold Direction (FOD), Fold Axis (FOX)

Feature Code:	**GF1300**
Feature Name:	Bedding
Description:	The arrangement of a sedimentary rock in beds or layers of varying thickness and character.
Feature Class:	Point, Line
Possible Attribute:	Bedding and Jointing Type (BJT), Strike (STR), Dip (DIP)

Feature Code:	**GF1400**
Feature Name:	Jointing
Description:	Fracture in rock where no movement has taken place.
Feature Class:	Point, Line
Possible Attribute:	Bedding and Jointing Type (BJT), Strike (STR), Dip (DIP)

Feature Code:	**GF1500**
Feature Name:	Lineament
Description:	A linear topographic feature reflecting the crustal structure line.
Feature Class:	Line
Possible Attribute:	Lineament Type (LTY), Strike (STR), Dip (DIP)

Feature Code:	**GF2000**
Feature Name:	Intrusive Structure
Description:	A ridgelike or moundlike structure, layered or massive.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Intrusive Structure Type (IST), Intrusive Structure Composition (ISC)

Feature Code:	**GF3000**
Feature Name:	Other Geological Structure
Description:	Distinctive structures contributing to the geological properties.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Geological Structure Category (GSC)

Feature Code:	**GF4000**
Feature Name:	Geological Boundary
Description:	A line demarcating rock units of different properties.
Feature Class:	Line
Possible Attribute:	Geological Accuracy (GAC)

Feature Code:	**GF4100**
Feature Name:	Rock Outcrop
Description:	Area of rock outcrop occurrence.
Feature Class:	Polygon
Possible Attribute:	Rock Outcrop Type (ROT)

Feature Code:	**GF4200**
Feature Name:	Rock Boulders
Description:	Area of rock boulder occurrence.
Feature Class:	Polygon
Possible Attribute:	Rock Boulders Type (RBT)

Feature Code:	**GF5000**
Feature Name:	Geological Formation
Description:	Area of rock formation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**GF6000**
Feature Name:	Profile Line
Description:	Indicative line where 2D information is available.
Feature Class:	Line
Possible Attribute:	Profile Type (PTY)

GG - Geoscience

Feature Code:	**GG1000**
Feature Name:	Groundwater Potential Area
Description:	An area identified capable of producing significant quantity of groundwater.
Feature Class:	Polygon
Possible Attribute:	Discharge (DIS), Groundwater Potential Class (GRC), Aquifer Type (AQT)

Feature Code:	**GG1100**
Feature Name:	Hydrogeological Survey Area
Description:	An area where hydrogeological studies are conducted.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Custodian (CUS), Geologist (GEO), Date Start (DAS), Date End (DAE), Work Status (WOS), Report Status (RES), Coverage Percentage (PCC)

Feature Code:	**GG1110**
Feature Name:	Aquifer Alluvial
Description:	A water bearing formation composed of loose, unsorted earthen materials, or particles such as clay, silt, sand, gravel, or stones.
Feature Class:	Polygon
Possible Attribute:	Aquifer Material (AQM), Aquifer Type (AQT), Aquifer Depth (AQD), Discharge (DIS)

Feature Code:	**GG1120**
Feature Name:	Aquifer Peat
Description:	A water bearing formation composed of peat
Feature Class:	Polygon
Possible Attribute:	Aquifer Material (AQM), Aquifer Type (AQT), Aquifer Depth (AQD), Discharge (DIS)

Feature Code:	**GG1130**
Feature Name:	Aquifer Hardrock
Description:	A water bearing formation in hardrock.
Feature Class:	Polygon
Possible Attribute:	Host Rock (HOR), Aquifer Depth (AQD), Discharge (DIS)

Feature Code:	**GG1200**
Feature Name:	Groundwater Monitoring Station
Description:	A monitoring station to measure the level and effects of groundwater discharge and groundwater quality.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Groundwater Station Type (GST)

Feature Code:	**GG1300**
Feature Name:	Groundwater Well
Description:	A hole drilled into the earth for the extraction of groundwater.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Well Type (WTY), Discharge (DIS)

Feature Code:	**GG1400**
Feature Name:	Groundwater Limit
Description:	An isoline defining the limit of an area with similar groundwater characteristics.
Feature Class:	Line
Possible Attribute:	Groundwater Limit Type (GLT)

Feature Code:	**GG1410**
Feature Name:	Groundwater Flow
Description:	A line indicating the direction of groundwater movement.
Feature Class:	Line
Possible Attribute:	-

Feature Code:	**GG1500**
Feature Name:	Hydrogeological Zone
Description:	An area delineated for groundwater extraction, source or protection.
Feature Class:	Polygon
Possible Attribute:	Hydrogeological Zone Type (HZT)

Feature Code:	**GG1600**
Feature Name:	Hydrogeological Natural Features
Description:	Groundwater natural discharges point.
Feature Class:	Point
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Hydrogeological Natural Features Type (HNT), Discharge (DIS)

Feature Code:	**GG2000**
Feature Name:	Geohazard Site
Description:	A site of naturally occurring or man-made geologic condition that presents a risk or is a potential danger to life and property.
Feature Class:	Point, Polygon
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Geohazard Type (GHT), Name (NAM), Geohazard Status (GHS)

Feature Code:	**GG2100**
Feature Name:	Landslide Site
Description:	A site of mass movement of landforms, and processes involving the downslope transport under gravitational influence.
Feature Class:	Point, Polygon
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Landslide Type (LST), Rock Type (RKT), Date (DAT)

Feature Code:	**GG2200**
Feature Name:	Rockfall Site
Description:	A site of the relatively free falling of rock of any size from a cliff or other very steep slope.
Feature Class:	Point, Polygon
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Rockfall Type (RFT), Rock Type (RKT), Date (DAT)

Feature Code:	**GG2300**
Feature Name:	Erosion Site
Description:	A site whereby the soil are loosened, dissolved or worn away, simultaneously moved from one place to another; usually by water.
Feature Class:	Point, Polygon
Possible Attribute:	Field Number (FNO), Registered Number (RNO), Erosion Type (EST)

Feature Code:	**GG2400**
Feature Name:	Construction Suitability
Description:	An area indicating the suitability of land to be developed in terms of free from one or more of any geological hazard.
Feature Class:	Polygon
Possible Attribute:	Construction Suitability Class Type (CST)

H – HYDROGRAPHY

HA – Coastal Hydrography

Feature Code:	**HA0010**
Feature Name:	Shore Line
Description:	The high water mark of ordinary spring tides.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**HA0020**
Feature Name:	Coast
Description:	The edge margin of land next to the sea.
Feature Class:	Line
Possible Attribute:	Name (NAM), Coast Type (COT), Coastal Erosion Status (CES)

Feature Code:	**HA0030**
Feature Name:	Shore
Description:	The narrow strip of land in immediate contact with the sea, including the zone between the high and low water lines.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Shore Type (SHT)

Feature Code:	**HA0040**
Feature Name:	Bay
Description:	A recess in the shore or an inlet of a sea between two capes or headlands.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0050**
Feature Name:	Lagoon
Description:	A shallow body of water, like a pond or lake, usually connected to the sea.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0060**
Feature Name:	Headland
Description:	A high, steep-faced promontory extending into the sea.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0070**
Feature Name:	Delta
Description:	An alluvial deposit formed at a river mouth.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0080**
Feature Name:	Bar
Description:	A submerged or emerged embankment of sand, gravel, or other unconsolidated material built on the sea floor in shallow water by waves or currents.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0090**
Feature Name:	Spit
Description:	A small point of land or a narrow shoal projecting into a body of water from the shore.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0100**
Feature Name:	Reef
Description:	An offshore consolidated rock hazard to navigation with a depth of about 20 m or less.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Reef Category (RFC)

Feature Code:	**HA0110**
Feature Name:	Atoll
Description:	A ring-shaped coral reef, often carrying low sand islands, enclosing a lagoon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0120**
Feature Name:	Beach
Description:	The zone of unconsolidated material that extends landward from the low water line to the place where there is marked change in material or physiographic form, or to the line of permanent vegetation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Beach Type (BET)

Feature Code:	**HA0130**
Feature Name:	Intertidal Flat
Description:	Marshy or muddy land areas which are covered and uncovered by the Mean High Water (MHW) and Mean Low Water (MLW).
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0140**
Feature Name:	Saline Flat
Description:	Marshy or muddy land areas which are influenced by seawater.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HA0150**
Feature Name:	Water Mark
Description:	The line along a coast or beach to which the sea recedes.
Feature Class:	Line
Possible Attribute:	Name (NAM), Water Level Mark (WAM)

Feature Code:	**HA0160**
Feature Name:	Mean Sea Level
Description:	The average level of the sea over a long period of time.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**HA0170**
Feature Name:	Coastal Flood Plain
Description:	An area along the coast which is submerged when sea water level reaches a specified level.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

HB – Shoreline Structure

Feature Code:	**HB0010**
Feature Name:	Breakwater
Description:	A structure protecting a shore area, harbour, anchorage, or basin from waves.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Breakwater Type (BWT), Armour Type (AMT)

Feature Code: **HB0020**
Feature Name: Groyne
Description: A shore-protection structure built to trap littoral drift or retard erosion of the shore.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HB0030**
Feature Name: Reclaimed Land
Description: An area formerly submerged under water which has been filled up and whose ground level is above high water line.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM), Reclaimed Land Purpose (RLP)

Feature Code: **HB0040**
Feature Name: Revetment
Description: A facing of stone, concrete or other material, built to protect a scarp, embankment, or shore structure against erosion by wave action or currents.
Feature Class: Line, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HB0050**
Feature Name: Sea Wall
Description: A structure separating land and water areas, primarily designed to prevent erosion and other damage due to wave action.
Feature Class: Line, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HB0060**
Feature Name: Bund
Description: A wall or mould built around a low-lying area to prevent flooding.
Feature Class: Line, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HB0070**
Feature Name: Outfall
Description: A structure extending into a body of water for the purpose of discharging sewage, storm runoff, or cooling water.
Feature Class: Point, Line, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

HC – Fishing Facilities

Feature Code: **HC0010**
Feature Name: Sea Recreational Area
Description: An area of sea water used for recreation or sports.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HC0020**
Feature Name: Fishing Haven
Description: Areas established to stimulate and attract fish.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HC0030**
Feature Name: Marine Farm
Description: An assemblage of cages, nets, rafts and floats where fish including shellfish are artificially cultivated.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HC0040**
Feature Name: Fishing Gate
Description: A structure that may be swung, drawn or lowered to block an entrance or passageway.
Feature Class: Point, Line
Possible Attribute: Name (NAM)

Feature Code: **HC0050**
Feature Name: Fishing Trap
Description: A structure (usually portable) for catching fish.
Feature Class: Point
Possible Attribute: Name (NAM), Fishing Trap Type (FTT)

Feature Code: **HC0060**
Feature Name: Fishing Platform
Description: A permanent offshore structure used for fishing.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **HC0070**
Feature Name: Artificial Reef
Description: An artificial structure made for fish breeding.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM)

HD – Ports and Harbours

Feature Code: **HD0010**
Feature Name: Harbour
Description: A protected inlet of a body of water where ships can anchor.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **HD0020**
Feature Name: Port
Description: A place provided with terminal and transfer facilities for loading and discharging cargo or passengers usually located in a harbour.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code:	**HD0030**
Feature Name:	Lock Basin
Description:	A wet dock in a waterway permitting ship to move from one level to another.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0040**
Feature Name:	Jetty/Pier
Description:	A long, narrow structure extending into the water to afford a berthing place for vessels, to serve as a promenade, etc.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0045**
Feature Name:	Wharf/Quay
Description:	A structure serving as a berthing place for vessels consisting of a solid or open wall of concrete, mansory, wood etc.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0050**
Feature Name:	Slipway
Description:	Reinforced inclined surface on which keel and bilge-blocks are laid for supporting vessel under construction.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**HD0060**
Feature Name:	Dockyard
Description:	An artificially enclosed area within which ships undergo repair or construction.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0070**
Feature Name:	Pontoon
Description:	A floating structure usually rectangular in shape which serves as landing, pier head or bridge support.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**HD0080**
Feature Name:	Dry Dock
Description:	An artificial basin fitted with a gate or caisson, into which vessel can be floated.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0090**
Feature Name:	Marina
Description:	A harbour facility for small boats and yachts where supplies repairs and various services are available.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0100**
Feature Name:	Floating Dock
Description:	A dock consisting of a floating structure of one or more sections that can control flooding to receive a vessel and pumping out the water to expose vessel's bottom.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0110**
Feature Name:	Dolphin
Description:	A post or group of posts used for mooring or warping a vessel, or as an aid to navigation.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HD0120**
Feature Name:	Mooring Facilities
Description:	The equipment or structure use to secure a vessel.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HD0130**
Feature Name:	Anchorage Area
Description:	An area in which vessels are allowed to anchor.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HD0140**
Feature Name:	Anchorage Prohibited
Description:	An area in which vessels are prohibited to anchor.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

HE – Navigation Aids

Feature Code:	**HE0010**
Feature Name:	Beacon
Description:	A prominent specially constructed object forming a conspicuous mark as fixed aid to navigation.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HE0020**
Feature Name:	Light House
Description:	A tower or structure containing a beacon light to warn or guide ships.
Feature Class:	Point
Possible Attribute:	Name (NAM), Light Characteristic Category (LCC)

Feature Code:	**HE0030**
Feature Name:	Transit Mark
Description:	Two distant fixed objects which provide position line.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HE0040**
Feature Name:	Navigation Pole
Description:	An elongated wood or metal embedded in the bottom of the sea to provide navigation.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HE0050**
Feature Name:	Buoy
Description:	A floating object moored to the seabed in a charted place as a navigation aid or for other specific purpose.
Feature Class:	Point
Possible Attribute:	Name (NAM), Buoy Type (BUT)

Feature Code:	**HE0060**
Feature Name:	Dredge Area
Description:	An area at the bottom of a body of water which has been deepened.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HE0070**
Feature Name:	Turning Basin
Description:	An area of water or enlargement of a channel in a port which is kept clear of buoy to enable vessels to turn.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HE0080**
Feature Name:	Traffic Separation Scheme
Description:	Imaginary lines forming an area on water bodies to separate opposing traffics.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**HE0090**
Feature Name:	Inshore Traffic Zone
Description:	A routing measure comprising a designated area between the landward boundary of a traffic separation scheme and the adjacent coast, to be used in accordance with the provisions of the International Regulations for Preventing Collision at Sea.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HE0100**
Feature Name: Recommended Route
Description: A track, shown on a chart by either a dashed or a continuous line, recommended to all or only certain vessels.
Feature Class: Line
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HE0110**
Feature Name: Precautionary Area
Description: A routing measure comprising an area within defined limits where ships must navigate with particular caution and within which direction of traffic flow may be recommended.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HE0120**
Feature Name: Marine Round About
Description: A specific point or zone where traffic moves around in a counter clockwise direction.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

HF – Danger and Hazards

Feature Code: **HF0010**
Feature Name: Obstruction
Description: Objects that endangers or prevent safe passage of a vessel, e.g. sunken rock, pinnacle etc.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HF0020**
Feature Name: Current
Description: Lines on charts showing the strength and directions of horizontal movement of water.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **HF0030**
Feature Name: Sandwave
Description: A large wavelike sediment feature in very shallow water and composed of sand.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HF0040**
Feature Name: Wreck
Description: The ruined remains of a stranded or sunken vessel.
Feature Class: Point
Possible Attribute: Name (NAM), Wreck Category (WKC), Wreck Depth (WKD)

Feature Code: **HF0050**
Feature Name: Spoil Ground
Description: An area at sea where dredged material is deposited. Also called dumping ground.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HF0060**
Feature Name: Explosive Dumping Ground
Description: An area at sea where explosives are dumped.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

HG – Depth Information

Feature Code: **HG0010**
Feature Name: Unsurveyed Area
Description: An area where the determination of ocean depth is determined by estimation because survey data does not exist or very poor.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HG0020**
Feature Name: Upright Sounding
Description: Soundings compiled from smaller scale or unreliable source.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **HG0030**
Feature Name: Unsurveyed Depth Contour
Description: A depth contour that is determined from points with no survey or very poor data.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **HG0040**
Feature Name: Swept Area
Description: An area swept by a towline or object below the surface to clear to a certain depth for the navigation safety.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **HG0050**
Feature Name: Sounding Depth
Description: Depth obtained through sounding by means of any sounding equipments.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code:	**HG0060**
Feature Name:	Surveyed Depth Contour
Description:	Line containing point of the same depth with survey data.
Feature Class:	Line
Possible Attribute:	Name (NAM), Contour Line Index (CLI), Contour Line Type (CLT), Contour Line Value (CLV)

Feature Code:	**HG0070**
Feature Name:	Mud Line
Description:	Delineates an area of mud that covers and uncovers depending on the elevation of the surface above chart datum.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**HG0080**
Feature Name:	Sand Line
Description:	Delineates an area of sand that covers and uncovers depending on the elevation of the surface above chart datum.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**HG0090**
Feature Name:	Depth Area
Description:	Water area containing soundings within a defined range of values permanently at or below sounding datum.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

HH – Inland Water

Feature Code:	**HH0010**
Feature Name:	Dam
Description:	A barrier, together with appurtenant structures, constructed for the purposes of storage, control and diversion of water. A dam may be constructed across a natural watercourse or on the periphery of a reservoir.
Feature Class:	Point
Possible Attribute:	Name (NAM), Dam Usage (DMU), Dam Type (DMT), Dam Structures (DMS)

Feature Code:	**HH0020**
Feature Name:	Lake
Description:	A large inland body of water entirely surrounded by land either naturally formed or man made.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH), Authority (AUT)

Feature Code:	**HH0030**
Feature Name:	Reservoir
Description:	Body of water, either natural or artificial, used for storage regulation and control of water resources.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Custodian (CUS), Authority (AUT)

Feature Code:	**HH0040**
Feature Name:	River
Description:	A relatively large natural stream of water.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**HH0050**
Feature Name:	Under Ground River
Description:	Stream that flow under the ground.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**HH0060**
Feature Name:	Old River Bed
Description:	An old course of river.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HH0070**
Feature Name:	Island
Description:	A body of land completely surrounded by water or marsh.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**HH0080**
Feature Name:	Sand Bar
Description:	A mass of sand, gravel and/or other consolidated materials, which rises near, to, or above water level, often near the mouth of a river or at the approach to a harbour.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HH0090**
Feature Name:	Salt Lick
Description:	An area where wildlife lick for salt.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HH0100**
Feature Name:	Water Hole
Description:	A dip or hole in the surface of the ground in which water collects.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HH0110**
Feature Name:	Waterfall
Description:	A sudden, vertical or near vertical descent of water over a step or ledge in the bed of a river.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HH0120**
Feature Name:	Rapids
Description:	A fast flowing section of a watercourse generally with exposed rocks or boulders.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**HH0130**
Feature Name:	Natural Spring
Description:	A natural exit of water from the ground.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HH0140**
Feature Name:	Pool
Description:	Small areas of still water especially formed naturally or shallow patch of water or other liquid lying on a surface.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HH0150**
Feature Name:	Artificial Recharge Basin
Description:	A man made circular container used to reload and fill water.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**HH0160**
Feature Name:	Tank
Description:	A fixed structure for storing liquids.
Feature Class:	Point
Possible Attribute:	Name (NAM), Tank Type (TAT), Tank Usage (TAU)

Feature Code:	**HH0170**
Feature Name:	Drain
Description:	Channel that carry away storm water to control flooding.
Feature Class:	Line
Possible Attribute:	Name (NAM), Drain Conveyance (DRV), Drain Usage (DRU), Drain Category (DRC), Drain Structure (DRS)

Feature Code:	**HH0180**
Feature Name:	Irrigation Drain
Description:	Open earth/concrete channel that transport surplus water from the paddy plots to the river.
Feature Class:	Line
Possible Attribute:	Name (NAM), Irrigation Drain Category (IRC)

Feature Code:	**HH0190**
Feature Name:	Irrigation Canal
Description:	Open earth/concrete channel that transport irrigation water from the source to other locations transversing topographic features along the way.
Feature Class:	Line
Possible Attribute:	Name (NAM), Irrigation Canal Category (ICC)

Feature Code:	**HH0200**
Feature Name:	Agricultural Drainage Drain
Description:	An open earth ditch/channel used to control the ground water table and transport surplus runoff water from an agricultural area to the river/sea.
Feature Class:	Line
Possible Attribute:	Name (NAM), Agricultural Drain Category (ADC), Agricultural Drainage Structures Purpose (ADS)

Feature Code:	**HH0210**
Feature Name:	Pond
Description:	An open body of water smaller than a lake which is either naturally formed or man made.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Pond Type (POT), Authority (AUT)

Feature Code:	**HH0220**
Feature Name:	Drain Structures
Description:	Structures constructed along drain alignment to facilitate the removal of excess stormwater in a drain.
Feature Class:	Point
Possible Attribute:	Name (NAM), Drainage Structures (DRS)

Feature Code:	**HH0225**
Feature Name:	Irrigation Drain Structures
Description:	Structures constructed along drain alignment in an irrigation scheme to regulate and remove excess water for paddy cultivation.
Feature Class:	Point
Possible Attribute:	Name (NAM), Irrigation Drain Structures (IRS)

Feature Code:	**HH0230**
Feature Name:	Irrigation Canal Structures
Description:	Structures constructed along canal alignment in an irrigation scheme to facilitate application of water for paddy cultivation.
Feature Class:	Point
Possible Attribute:	Name (NAM), Irrigation Canal Structure Purpose (ICS)

Feature Code:	**HH0240**
Feature Name:	Agricultural Drainage Structures
Description:	Wooden or reinforced concrete structures used to control the water in an agricultural area.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Agricultural Drainage Structures Purpose (ADS)

Feature Code: **HH0250**
Feature Name: Inland Flood Prone Area
Description: An inland areas that are prone to flood in relation to the rainfall intensity and year of accurance.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

HJ – River Structure

Feature Code: **HJ0010**
Feature Name: Water Control Structure
Description: A building or structure used to control the flow of water.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **HJ0020**
Feature Name: Riverbank Protection
Description: Structures built alongside riverbanks to protect bank failure, erosion, etc.
Feature Class: Line
Possible Attribute: Name (NAM), Riverbank Protection Type (RPT)

Feature Code: **HJ0030**
Feature Name: Weir
Description: A barrier constructed to control the flow or raise the level of water.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **HJ0040**
Feature Name: Fish Ladder
Description: Structure built alongside river to allow fish to migrate upstream or downstream.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **HJ0050**
Feature Name: Riverlock
Description: A dock in a river waterway permitting boats from one level to another.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **HJ0060**
Feature Name: Barrage
Description: A barrier, provided with a series of gates, across the river to regulate water level upstream and also to control tidal influence.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code:	**HJ0070**
Feature Name:	Tidal Gate
Description:	A barrier similar to barrage but smaller in size specifically to control tidal influence.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HJ0080**
Feature Name:	Trap Boom
Description:	Barrier across a river in an urban area to trap floating rubbish for collection and disposal.
Feature Class:	Point
Possible Attribute:	Name (NAM), Trap Boom Type (TBT)

Feature Code:	**HJ0090**
Feature Name:	Culvert
Description:	A transverse drain or waterway structure that crosses beneath a road, railway, canal or through an embankment by means of a pipe or enclosed.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**HJ0100**
Feature Name:	River Groyne
Description:	A low artificial waal-like structure extending from the bank of the river in transverse direction to the current.
Feature Class:	Point
Possible Attribute:	River Groyne Type (RYT)

HK – Offshore

Feature Code:	**HK0010**
Feature Name:	Offshore Lighting
Description:	A group of light located on the sea.
Feature Class:	Point
Possible Attribute:	Name (NAM), Light Characteristic Category (LCC)

Feature Code:	**HK0020**
Feature Name:	Offshore Platform
Description:	A flat surface raised above the sea used as a drilling, production or living quarters in offshore oil and gas operations.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**HK0030**
Feature Name:	Flare Stack
Description:	A tall structure used for burning off waste oil or gas.
Feature Class:	Point
Possible Attribute:	Name (NAM)

HL – Miscellaneous

Feature Code:	**HL0010**
Feature Name:	Hydrological Station
Description:	A hydrological station is a geographical location at which observations and measurements of hydrological parameters such as rainfall, evaporation, water level, stream flow, suspended sediment and water quality are made either manually by an observer, automatically recorded by a recorder or logged by a data logger. In addition, the station can be equipped with a telemetric system using telecommunication where data are collected, transmitted, recorded and displayed at the base station for flood forecasting and warning as well as drought monitoring purposes.
Feature Class:	Point
Possible Attribute:	Name (NAM), Hydrological Station Type (HST)

R – HYPSOGRAPHY

RA – Relief Portrayal

Feature Code:	**RA0010**
Feature Name:	Contour Line
Description:	An imaginary line formed by connecting points on earth surface having the same elevations.
Feature Class:	Line
Possible Attribute:	Name (NAM), Contour Line Type (CLT), Contour Line Index (CLI), Contour Line Value (CLV)

Feature Code:	**RA0020**
Feature Name:	Valley Bottom Line
Description:	A line representation of the lowest part of a valley.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**RA0030**
Feature Name:	Breakline
Description:	A line representing the demarcation of a sudden and significant change in the gradient of the terrain relief.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**RA0040**
Feature Name:	Inland Water Elevation
Description:	A location with a generalised elevation value relative to a vertical datum associated with an inland, usually confined, water body.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code: **RA0050**
Feature Name: Pinnacle
Description: A small turret or spire usually ending in a pyramid or cone, crowning a buttress.
Feature Class: Point, Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **RA0060**
Feature Name: Cliff Precipitous
Description: A high, steep face of rock.
Feature Class: Line, Polygon
Possible Attribute: Name (NAM)

Feature Code: **RA0070**
Feature Name: Cutting
Description: An excavated channel through high ground.
Feature Class: Line, Polygon
Possible Attribute: Name (NAM)

Feature Code: **RA0080**
Feature Name: Embankment
Description: An earth or concrete bank for keeping back water, or for carrying a road or railway or for protecting adjacent land from inundation by flood water.
Feature Class: Line, Polygon
Possible Attribute: Name (NAM), Embankment Purpose (EMP)

Feature Code: **RA0090**
Feature Name: Ridge
Description: A long narrow hilltop, mountain range or watershed.
Feature Class: Line
Possible Attribute: Name (NAM), Ridge Type (RIT)

Feature Code: **RA0100**
Feature Name: Spot Height
Description: Locations where height has been determined with respect to a vertical datum.
Feature Class: Point
Possible Attribute: Name (NAM), Spot Height Value (SHV)

S – SOIL

SA – Histosols

Feature Code: **SA1000**
Feature Name: Folists
Description: Histosols which are saturated with water for less than 30 days during normal years.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA1100**
Feature Name: Tropofolists
Description: Other Folists that have an isomesic or warmer iso soil temperature regime.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA1200**
Feature Name: Medifolists
Description: Other Folists.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA2000**
Feature Name: Fibrists
Description: Histosols which have more thickness of fibric materials than any other kind of organic soil materials.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA2100**
Feature Name: Tropofibrists
Description: Other Fibrists that have a difference of less than 5 °C between mean summer and mean winter soil temperatures at a depth of 50 cm below the soil surface.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA2200**
Feature Name: Luvifibrists
Description: Other Fibrists that have a horizon 2 cm or more thick in which humilluvic materials constitute one half or more of the volume.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA2300**
Feature Name: Medifibrists
Description: Other Fibrists.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA3000**
Feature Name: Hemists
Description: Histosols which have more thickness of hemic soil materials than any other kind of organic soil materials.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA3100**
Feature Name: Sulfohemists
Description: Hemist which has a sulfuric horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA3200**
Feature Name: Sulfihemists
Description: Hemist which has a sulfidic soil materials.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA3300**
Feature Name: Luvihemists
Description: Hemist which has a sulfidic soil materials.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA3400**
Feature Name: Tropohemists
Description: Other Hemists that have a difference of less than 5 °C between mean summer and mean winter soil temperatures at a depth of 50 cm below the soil surface.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA3500**
Feature Name: Medihemists
Description: Other Hemists.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA4000**
Feature Name: Saprists
Description: Histosols which have more thickness of sapric soil materials than any other kind of organic soil materials.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA4100**
Feature Name: Sulfosaprists
Description: Saprist which has a sulfuric horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA4200**
Feature Name: Sulfisaprists
Description: Saprist which has a sulfidic soil materials.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA4300**
Feature Name: Troposaprists
Description: Other Saprists that have a difference of less than 5 °C between mean summer and mean winter soil temperatures at a depth of 50 cm below the soil surface.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SA4400**
Feature Name: Medisaprists
Description: Other Saprists.
Feature Class: Polygon
Possible Attribute: Name (NAM)

SB – Spodosols

Feature Code: **SB1000**
Feature Name: Aquods
Description: Spodosol which have aquic conditions.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SB1100**
Feature Name: Alaquods
Description: Aquods that have < 0.1 % in 75 % or more of the spodic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SB1200**
Feature Name: Placaquods
Description: Aquods that have a placic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SB1300**
Feature Name: Duraquods
Description: Aquods that have dominantly, a cemented layer that does not slake in water.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SB1400**
Feature Name: Epiaquods
Description: Aquods that have episaturation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SB1500**
Feature Name: Endoaquods
Description: Aquods that have a lithic contact within 50 cm or histic epipedon or andic properties or with both argillic or kandic horizon within 200 cm or umbric horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SB2000**
Feature Name: Humods
Description: Spodosol which have 6 % or more organic carbon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code:	**SB2100**
Feature Name:	Placohumods
Description:	Humods that have a placic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SB2200**
Feature Name:	Durihumods
Description:	Humods that have dominantly, a cemented layer that does not slake in water.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SB2300**
Feature Name:	Haplohumods
Description:	Humods that have have a placic horizon or duripan, or fragipan within 100 cm.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SB3000**
Feature Name:	Orthods
Description:	Other spodosols which have lithic contact such as placic horizon or duripan, or fragipan or have low iron content in spodic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SB3100**
Feature Name:	Placorthods
Description:	Orthods that have a placic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SB3200**
Feature Name:	Durorthods
Description:	Orthod that have dominantly, a cemented layer that does not slake in water.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SB3300**
Feature Name:	Alorthods
Description:	Orthod that have < 0.1 % iron.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SB3400**
Feature Name:	Haplorthods
Description:	Other Orthods that have lithic contact at shallow depth or have both fragic properties and aquic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

SC – Andisols

Feature Code:	**SC1000**
Feature Name:	Aquands
Description:	Andisols which have either a histic epipedon or aquic moisture conditions.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SC1100**
Feature Name:	Placaquands
Description:	Aquands that have a placic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SC1200**
Feature Name:	Duraquands
Description:	Aquands that have dominantly, a cemented layer that does not slake in water.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SC1300**
Feature Name:	Vitraquands
Description:	Aquands that have a 1500 kPa water retention of < 15 % dominating the soil horizon sits on lithic contact, duripan or petrocalcic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SC1400**
Feature Name:	Melanaquands
Description:	Aquands that have a melanic epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SC1500**
Feature Name:	Epiaquands
Description:	Aquands that have episaturation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SC1600**
Feature Name:	Endoaquands
Description:	Other Aquands that have lithic contact at shallow depth or durapan or histic epipedon or have more than 2 cmol/kg Al in some horizon or hydric properties or a layer with > 3 % organic carbon with color of mollic epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code: **SC2000**
Feature Name: Vitrands
Description: Andisols which have a 1500 kPa water retention of < 15 % dominating the soil horizon sits on lithic contact, duripan or petrocalcic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC2100**
Feature Name: Udivitrands
Description: Vitrands that have udic moisture regime.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC3000**
Feature Name: Udands
Description: Other Andisols which have a placic horizon or duripan or a melanic epipedon or hydric properties or alic properties.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC3100**
Feature Name: Placudands
Description: Udands that have a placic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC3200**
Feature Name: Durudands
Description: Udands that have dominantly, a cemented layer that does not slake in water.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC3300**
Feature Name: Melanudands
Description: Udands that have a melanic epipedon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC3400**
Feature Name: Fulvudands
Description: Udands that have an epipedon with a color value, moist and chroma of 3 or less.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC3500**
Feature Name: Hydrudands
Description: Udands that have a 1500 kPa water retention of 100 % or more dominating the soil horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SC3600**
Feature Name: Hapludands
Description: Other Udands that have lithic contact at shallow depth or anthraquic condition or duripan and aquic moisture conditions or durapan or have more than 2 cmol/kg Al in some horizon or hydric properties or an aquic moisture conditions or hydric properties or sum of extractable bases of > 25 cmol/kg or oxic horizon or either argillic or kandic horizon with organic layer with low base saturation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

SD – Oxisols

Feature Code: **SD1000**
Feature Name: Udox
Description: Oxisol which have udic moisture regime.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SD1100**
Feature Name: Sombriudox
Description: Udox that have a sombric horizon
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SD1200**
Feature Name: Acrudox
Description: Udox that have an oxic or kandic horizon with low ECEC and a pH value of 5 or more
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SD1300**
Feature Name: Eutrudox
Description: Udox that have high base saturation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SD1400**
Feature Name: Kandiudox
Description: Udox that have a kandic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SD1500**
Feature Name: Hapludox
Description: Udox that have either histic epipedon, or some plinthite, or aeric properties, or high organic carbon content.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code:	**SD2000**
Feature Name:	Aquox
Description:	Oxisol which have an aquic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SD2100**
Feature Name:	Acraquox
Description:	Aquox that have an oxic horizon with low ECEC and pH value of 5 or more.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SD2200**
Feature Name:	Plinthaquox
Description:	Aquox that have plinthite.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SD2300**
Feature Name:	Eutraquox
Description:	Aquox that have high base saturation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SD2400**
Feature Name:	Haplaquox
Description:	Other Aquox that have either histic epipedon, or some plinthite, or aeric properties, or high organic carbon content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SD3000**
Feature Name:	Perox
Description:	Oxisol which have perudic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SD3100**
Feature Name:	Sombriperox
Description:	Perox that have a sombric horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SD3200**
Feature Name:	Acoperox
Description:	Perox that have an oxic or kandic horizon with low ECEC and a pH value of 5 or more.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code: **SD3300**
Feature Name: Eutroperox
Description: Perox that have high base saturation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SD3400**
Feature Name: Kandiperox
Description: Perox that have a kandic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SD3500**
Feature Name: Haploperox
Description: Other Perox that have both a petroferric/lithic contact and aquic moisture regime or plinthite and aquic moisture regime or high organic carbon with/without red in color or having andic properties or rhodic properties.
Feature Class: Polygon
Possible Attribute: Name (NAM)

SE – Vertisols

Feature Code: **SE1000**
Feature Name: Aquerts
Description: Vertisol which have an aquic moisture regime.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SE1100**
Feature Name: Duraquerts
Description: Aquerts that have duripan.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SE1200**
Feature Name: Dystraquerts
Description: Aquerts that have an electrical conductivity of 4 dS/m and pH of 4 or less.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SE1300**
Feature Name: Epiaquerts
Description: Aquerts that have episaturation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code:	**SE1400**
Feature Name:	Endoaquerts
Description:	Other Aquerts that have an electrical conductivity of 15 dS/m or more or an exchange sodium percentage (ESP) of 15 or more dominating the profile or aeric properties or lithic contact within 100 cm or have a layer of 25 cm or more thick that contains less than 27 % clay or horizon within 30 cm from surface have color value 4 or more.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SE2000**
Feature Name:	Uderts
Description:	Vertisol which have an udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SE2100**
Feature Name:	Drystruderts
Description:	Uderts that have an electrical conductivity of 4 dS/m and pH of 4 or less.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SE2200**
Feature Name:	Hapluderts
Description:	Other Uderts that have a lithic contact within 50 cm or have an aquic moisture regime or oxyaquic properties or a lithic contact within 100 cm or layer of 25 cm or more thick that contains less than 27 % clay or a horizon within 30 cm from surface have color value 4 or more.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

SF – Ultisols

Feature Code:	**SF1000**
Feature Name:	Humults
Description:	Ultisol which have high organic matter in the argillic or kandic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF1100**
Feature Name:	Sombrihumults
Description:	Humults that have a sombric horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF1200**
Feature Name:	Plinthohumults
Description:	Humults that have plinthite.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF1300**
Feature Name:	Kandihumults
Description:	Humults that have a CEC of 16 cmol/kg clay or less and ECEC of 12 cmol/kg clay or less in argillic or kandic horizon and do not have a clay decrease of more than 20 % or more from maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF1400**
Feature Name:	Kanhaplohumults
Description:	Humults that have a CEC of 16 cmol/kg clay or less and ECEC of 12 cmol/kg clay or less.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF1500**
Feature Name:	Palehumults
Description:	Humults that donot have a lithic contact and clay decrease of more than 20 % or more from maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF1600**
Feature Name:	Haplohumults
Description:	Other Humults that have lithic contact within 50 cm or aquic and andic properties or aquic properties or andic properties or 5 % or more plinthite in some horizons or oxyaquic properties.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF2000**
Feature Name:	Udults
Description:	Ultisol which have an udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF2100**
Feature Name:	Plinthudults
Description:	Udults that have plinthite.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF2200**
Feature Name:	Kandiudults
Description:	Udults that have a CEC of 16 cmol/kg clay or less and ECEC of 12 cmol/kg clay or less in argillic or kandic horizon and donot have a clay decrease of more than 20 % or more from maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF2300**
Feature Name:	Kanhapludults
Description:	Udults that have a lithic contact and CEC of 16 cmol/kg clay or less and ECEC of 12 cmol/kg clay or less in argillic or kandic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF2400**
Feature Name:	Paleudults
Description:	Udults that donot have both a lithic contact within 150 cm and clay decrease of more than 20 %.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF2500**
Feature Name:	Rhodudults
Description:	Udults that have an epipedon with color value, of 3 or less and most horizon with hue of 2.5 YR or redder.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF2600**
Feature Name:	Hapludults
Description:	Other Udults that have a discontinuous lithic contact within 50 cm or for argillic horizon < 25 cm with no lithic contact within 50 cm or aquic and vertic properties or aquic properties with sandy horizon or argillic horizon consist of partly or entirely of lamella or oxyaquic properties or humic properties.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF3000**
Feature Name:	Aquults
Description:	Ultisol which have an aquic moisture conditions.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF3100**
Feature Name:	Plinthaquults
Description:	Aquults that have plinthite.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SF3200**
Feature Name:	Kandiaquults
Description:	Do not have a lithic, paralithic ot petroferric contact within 150 cm of mineral soil surface, and CEC of 16 cmol(+)/kg clay and do not have a clay decrease with increasing depth of 20 % or more from the maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code: **SF3300**
Feature Name: Kanhaplaquults
Description: Aquults that have have a CEC of 16 cmol/kg clay or less and ECEC of 12 cmol/kg clay or less in argillic or kandic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SF3400**
Feature Name: Paleaquults
Description: Aquults that donot have a lithic contact and clay decrease of more than 20 % or more from maximum clay content.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SF3500**
Feature Name: Umbraquults
Description: Aquults that have an umbric or mollic epipedon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SF3600**
Feature Name: Epiaquults
Description: Aquults that have episaturation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SF3700**
Feature Name: Endoaquults
Description: Other Aquults that have a sandy texture above argillic horizon or aeric properties.
Feature Class: Polygon
Possible Attribute: Name (NAM)

SG – Mollisols

Feature Code: **SG1000**
Feature Name: Albolls

Description: Mollisols that have an argillic or natric horizon; and an Albic horizon with chroma of 2or less that is 2.5 cm or more thick and within 100 cm of soil material have redox concentration in the form of masses or concretions and an aquic condition for sometime in most years.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SG1100**
Feature Name: Argialbolls
Description: Other Albolls.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code:	**SG2000**
Feature Name:	Aquolls
Description:	Mollisol which have an aquic moisture regime and either histic overlying mollic epipedon, mollic epipedon or ESP of 15 or more in upper part of mollic epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SG2100**
Feature Name:	Duraquolls
Description:	Aquolls that have a duripan.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SG2200**
Feature Name:	Argiaquolls
Description:	Other Aquolls that have an argillic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SG2300**
Feature Name:	Epiaquolls
Description:	Other Aquolls that have episaturation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SG2400**
Feature Name:	Endoaquolls
Description:	Other Aquolls.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SG3100**
Feature Name:	Rendolls
Description:	Mollisol which have thin mollic epipedon, vertic properties and udic moisture regime but do not have argillic or calcic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SG4000**
Feature Name:	Udolls
Description:	Mollisol which have udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SG4100**
Feature Name:	Paleudolls
Description:	Udolls that donot have a lithic contact and clay decrease of more than 20 % or more from maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code: **SG4200**
Feature Name: Calciudolls
Description: Udolls that have calcic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SG4300**
Feature Name: Argiudolls
Description: Udolls that have argillic horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SG4400**
Feature Name: Vermudolls
Description: Udolls that have 50 % or more wormholes, wormcasts, or filled animal burrow.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SG4500**
Feature Name: Hapludolls
Description: Udolls that have a lithic contact at shallow depth or andic properties or vertic properties or calcic horizon or irregular decrease in organic carbon or mollic horizon with a texture finer than loamy sand that contain pedoturbation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

SH – Alfisols

Feature Code: **SH1000**
Feature Name: Aqualfs
Description: Alfisol which have an aquic moisture conditions.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SH1100**
Feature Name: Plinthaqualfs
Description: Aqualfs that have plinthite.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SH1200**
Feature Name: Duraqualfs
Description: Aqualfs that have a duripan.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code:	**SH1300**
Feature Name:	Kandiaqualfs
Description:	Aqualfs that have a CEC of 16 cmol/kg clay or less and ECEC of 12 cmol/kg clay or less in argillic or kandic horizon and donot have a clay decrease of more than 20 % or more from maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH1400**
Feature Name:	Umbraqualfs
Description:	Aqualfs that have an umbric or mollic epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH1500**
Feature Name:	Epiaqualfs
Description:	Aqualfs that have episaturation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH1600**
Feature Name:	Endoaqualfs
Description:	Aqualfs that have andic properties or vertic and chromic properties or vertic properties oraeric properties with fragipan or fragipan or sandy texture or thin mollic epipedon with aquic moisture regime or aeric and thin umbric epipedon or aeric properties or mollic epipedon or umbric epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2000**
Feature Name:	Udalfs
Description:	Alfisol which have an udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2100**
Feature Name:	Agrudalfs
Description:	Udalfs that have an udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2200**
Feature Name:	Ferrudalfs
Description:	Udalfs that have a glossic horizon and its argillic or kandic horizon are enriched with iron and cemented.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2300**
Feature Name:	Kandiudalfs
Description:	Udalfs that have a kandic horizon donot have a clay decrease of more than 20 % or more from maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2400**
Feature Name:	Kanhapludalfs
Description:	Other Udalfs.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2500**
Feature Name:	Paleudalfs
Description:	Udalfs that have argillic horizon, donot have both a lithic contact and clay decrease of more than 20 % or more from maximum clay content.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2600**
Feature Name:	Rhodudalfs
Description:	Udalfs that have a red colored argillic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SH2700**
Feature Name:	Hapludalfs
Description:	Udalfs that have lithic contact within 50 cm or aquic and chromic properties or oxyaquic properties or andic properties or vertic and chromic properties or vertic properties or andic properties or vitrandic properties oir aeric properties with sandy texture or abrupt textural changes, aquic moisture regime with base saturation of < 60 % below 125 cm or abrupt textural changes with aquic moisture regime or interfingering in albic horizon with aquic moisture regime or aquic condition with mollic epipedon or aquic moisture regime or oxyaquic condition or consist of lamella or sandy texture or interfingering of albic horizon or having argillic /kandic horizon < 35 cm thick with no lithic contact or base saturation of < 60 % or thin mollic epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

SJ – Inceptisols

Feature Code:	**SJ1000**
Feature Name:	Aquepts
Description:	Inceptisol which have an aquic moisture conditions or an exchange sodium percentage (ESP) of 15 or more dominating the profile.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ1100**
Feature Name:	Sulfaquepts
Description:	Aquepts that have sulfuric horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ1200**
Feature Name:	Placaquepts
Description:	Aquepts that have, in half or more of each pedon, a plastic horizon within 100 cm of the mineral soil surface.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ1300**
Feature Name:	Plinthaquepts
Description:	Other Aquepts that have one or more horizons within 125 cm of the mineral soil surface in which plinthite either forms acontinuous phase or constitutes one half or more of the volume.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ1400**
Feature Name:	Tropaquepts
Description:	Other Hemists that have a difference of less than 5 °C between mean summer and mean winter soil temperatures at a depth of 30 cm below the soil surface, or talithic or paralithic contact, whichever is shallower.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ1500**
Feature Name:	Humaquepts
Description:	Aquepts that have histic, melanic, mollic or umbric epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ1600**
Feature Name:	Epiaquepts
Description:	Aquepts that have episaturation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ1700**
Feature Name:	Endaquepts
Description:	Other Aquepts that have sulfuric horizon or lithic contact or vertic properties or aquic moisture regime with andic properties or an organic carbon content of 0.2 % or more below 125 cm or irregular carbon content below 25 cm or aeric properties humic properties or mollic epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ2000**
Feature Name:	Tropepts
Description:	Other Inceptisols that have an isomesic or warmer iso temperature regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ2100**
Feature Name:	Humitropepts
Description:	Tropepts that do not have sombric horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ2200**
Feature Name:	Sombritropepts
Description:	Other Tropepts that have a sombric horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ2300**
Feature Name:	Eutropepts
Description:	Tropepts that have a base saturation (byNH_4 OAC)of 50 % or more in all horizons between a depth of 25 cm from the mineral soil surface and either a depth of 100cm , or a lithic, paralithic or petroferric contact if shallower.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ2400**
Feature Name:	Dystropepts
Description:	Other Tropepts.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ3000**
Feature Name:	Opchrepts
Description:	Other Inceptisols that has an ochris epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ3100**
Feature Name:	Eutropchrepts
Description:	A base saturation of 60 % or more in one or more horizons between 25 and 75 cm from mineral soil surface.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SJ3200**
Feature Name:	Dystropchrepts
Description:	Other Ochrepts.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code: **SJ4000**
Feature Name: Umbrepts
Description: Other Inceptisols.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SJ4100**
Feature Name: Haplumbrepts
Description: Other Umbrepts.
Feature Class: Polygon
Possible Attribute: Name (NAM)

SK – Entisols

Feature Code: **SK1000**
Feature Name: Aquents
Description: Entisol which have an aquic moisture conditions.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SK1100**
Feature Name: Sulfaquents
Description: Aquents that have sulfuric horizon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SK1200**
Feature Name: Hydraquents
Description: Aquents that have in all horizon at a depth of 20 – 50 cm, both an n value of more than 0.7 and 8 % or more clay.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SK1300**
Feature Name: Psammaquents
Description: Aquents that have less than 35 % rock fragment and a texture of loamy fine sand or coarser in all layers.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SK1400**
Feature Name: Fluvaquents
Description: Aquents that have either an irregular decrease in content of organic carbon with depth or 0.2 % or more organic carbon.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code: **SK1500**
Feature Name: Epiaquents
Description: Aquents that have episaturation.
Feature Class: Polygon
Possible Attribute: Name (NAM)

Feature Code:	**SK1600**
Feature Name:	Endoaquents
Description:	Other Aquents that have sulfidic material or sulfuric horizon or lithic contact or horizon with Exchangable Sodium Percentage (ESP) of 15% or more or aeric properties orhumic properties with aquic moisture regime and base saturation of < 50 % or mollic epipedon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK2000**
Feature Name:	Arents
Description:	Entisol which have one or more layers with 3 % or more fragment of diagnostic horizon.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK2100**
Feature Name:	Udarents
Description:	Arents that have an udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK3000**
Feature Name:	Psamments
Description:	Entisol which have less than 35 % rock fragment and a texture of loamy fine sand or coarser in all layers.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK3100**
Feature Name:	Quartzipsamments
Description:	Psamments that have in sand and clay fraction, a total of more tan 90 % resistent minerals.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK3200**
Feature Name:	Tropopsamments
Description:	Other Psamments that have an udic moisture regime and a difference of less than 5 °C between mean summer and mean winter soil temperatures at a depth of 50 cm below the soil surface.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK3300**
Feature Name:	Udipsamments
Description:	Other Psamments.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK4000**
Feature Name:	Fluvents
Description:	Entisol which do not have lithic contact within 25 cm depth and have slope of less than 25 %, and irregular decrease in content of organic carbon with depth.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK4100**
Feature Name:	Tropofluvents
Description:	Other Fluvents that have Isomesic, isothermic or isohyperthemic soil temperature regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK4200**
Feature Name:	Udifluvents
Description:	Fluvents that have an udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK5000**
Feature Name:	Orthents
Description:	Other Entisol.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK5100**
Feature Name:	Troporthents
Description:	Other Orthents that have an udic moisture regime and a difference of less than 5 °C between mean summer and mean winter soil temperatures at a depth of 50 cm below the soil surface.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

Feature Code:	**SK5200**
Feature Name:	Udorthents
Description:	Orthents that have an udic moisture regime.
Feature Class:	Polygon
Possible Attribute:	Name (NAM)

T – TRANSPORTATION

TA – Land Transportation

Feature Code:	**TA0010**
Feature Name:	Rail Line
Description:	A track on which trains run.
Feature Class:	Line
Possible Attribute:	Name (NAM), Rail Usage (RTU), Rail Tracking (RTR), Rail Track Function (RTF), Rail Track Electrification (RTE), Status (STA), Grade Location (GRL)

Feature Code:	**TA0020**
Feature Name:	Rail Station
Description:	A place where trains stop to load and unload passengers and goods including its associated buildings and facilities.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Rail Track Category (RTC), Status (STA), Grade Location (GRL), Rail Station Type (RST), Rail Usage (RTU)

Feature Code:	**TA0030**
Feature Name:	Rail Yard
Description:	A series of railway sidings at a station, terminal or depot where the activities of train formation is concentrated.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**TA0040**
Feature Name:	Turntable
Description:	A structure that rotate railway vehicles and machineries.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**TA0050**
Feature Name:	Railway Gate
Description:	A gate for train to cross a road at grade level.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Railway Gate Type (RGT)

Feature Code:	**TA0060**
Feature Name:	Road
Description:	An established surface on the right of way in areas meant for exclusive use of vehicles.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Toll (TOL), Carriageway Type (CWT), Traffic Flow (RDF), Route Number (RTN), Number of Lane (LAN), Status (STA), Road Pavement Type (RPV), Custodian(CUS), Authority (AUT), Road Category (RDC), Road Service Area (RDS)

Feature Code:	**TA0080**
Feature Name:	Slip Road
Definition:	A short one-way road at junction connecting adjacent road to ease traffic flow.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Direction (DIR), Number of Lane (LAN), Status (STA), Road Surface Composition (RSC), Authority (AUT)

Feature Code:	**TA0090**
Feature Name:	Road Junction
Definition:	A point where two or more roads cross or meet.
Feature Class:	Point
Possible Attribute:	Name (NAM), Signalisation (SIG), Number of Direction (NOD), Identification Number (IDN)

Feature Code:	**TA0100**
Feature Name:	Round-about
Definition:	A road junction designed for movement of traffic in one direction around a central island.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Identification Number (IDN), Signalisation (SIG), Number of Lane (LAN), Status (STA), Road Surface Composition (RSC), Authority (AUT)

Feature Code:	**TA0110**
Feature Name:	Track
Description:	The path of travels other than roads which are unpaved.
Feature Class:	Line
Possible Attribute:	Name (NAM), Track Type (TCT), Track Category (TCC)

Feature Code:	**TA0120**
Feature Name:	Interchange
Description:	A road crossing with a structure that is built to provide dispersion of traffic.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Interchange Type (ITT), Vertical Clearance (VTC)

Feature Code:	**TA0130**
Feature Name:	Lay-by
Description:	A recession along the road for vehicles to pull over or park.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Lay-by Usage (LAU)

Feature Code:	**TA0140**
Feature Name:	Overhead Crossing
Description:	A bridge that offers pedestrians and cyclists the safest means of crossing a road.
Feature Class:	Point, Line
Possible Attribute:	Name (NAM), Passage Usage (PAU), Vertical Clearance (VTC)

Feature Code:	**TA0150**
Feature Name:	Toll Plaza
Description:	A structure along highways where toll charges are collected.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**TA0160**
Feature Name:	Subway
Description:	A passage below the surface of the road that offers pedestrians and cyclists the safest means of crossing a road.
Feature Class:	Point, Line
Possible Attribute:	Name (NAM), Passage Usage (PAU), Length (LEN), Width (WID), Vertical Clearance (VTC)

Feature Code:	**TA0170**
Feature Name:	Traffic Sign
Description:	A devise mounted on a fixed or portable support whereby a specific message is conveyed by means of word or symbols.
Feature Class:	Point
Possible Attribute:	Name (NAM), Traffic Sign Type (TRA)

Feature Code:	**TA0180**
Feature Name:	Kilometer Post
Description:	A post consists of information of destination and the distance to the destination installed at every kilometer spacing along a road.
Feature Class:	Point
Possible Attribute:	Name (NAM), Identification Number (IDN), Kilometer Post Type (KMT)

Feature Code:	**TA0190**
Feature Name:	Traffic Light
Description:	A device electrically operated by which traffic is alternately directed to stop and permitted to proceed at road intersections.
Feature Class:	Point
Possible Attribute:	Name (NAM), Identification Number (IDN)

Feature Code:	**TA0200**
Feature Name:	Pedestrian Crossing
Description:	A zone, usually painted in stripes, designed for pedestrian to cross a road.
Feature Class:	Point, Line
Possible Attribute:	Name (NAM), Signalisation (SIG), Identification Number (IDN)

Feature Code:	**TA0210**
Feature Name:	Cable Car Route
Description:	A specific thoroughfare reserved for the use and operation of cable cars.
Feature Class:	Line
Possible Attribute:	Name (NAM), Authority (AUT), Cable Car Type (CCT)

Feature Code:	**TA0220**
Feature Name:	Cable Car Station
Description:	A building at the end of a cable car route used for the administration and operation of cable cars.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**TA0230**
Feature Name:	Tunnel
Description:	An enclosed passage constructed at grade, underground or underwater, open at both ends, usually contains a road or railway or for flood mitigation or for multimode (flood and road).
Feature Class:	Point, Line
Possible Attribute:	Name (NAM), Tunnel Usage (TNU), Length (LEN), Width (WID), Vertical Clearance (VTC), Custodian (CUS), Authority (AUT)

Feature Code:	**TA0240**
Feature Name:	Bridge
Description:	A structure erected over a depression or an obstruction such as river, road or railway and having a passageway which allows traffic to cross from one side to the other.
Feature Class:	Point, Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Identification Number (IDN), Bridge Construction Material Type (BMT), Bridge Structural System Type (BST), Bridge Deck Type (BKT), Bridge Abutment Type (BAT), Bridge Swingability (BRS), Number of Bridge Span (NBS), Length (LEN), Width (WID), Vertical Clearance (VTC)

Feature Code:	**TA0250**
Feature Name:	Bridge Pier
Definition:	An intermediate support for bridge deck structures.
Feature Class:	Point
Possible Attribute:	Name (NAM), Identification Number (IDN), Height (HEI)

Feature Code:	**TA0260**
Feature Name:	Causeway
Description:	A raised road or rail track across wet or marshy ground, or water.
Feature Class:	Line, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Length (LEN)

Feature Code:	**TA0270**
Feature Name:	Inland Port
Description:	A place located inland and equipped with facilities for loading and unloading of international cargo.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

TB – Water Transportation

Feature Code:	**TB0010**
Feature Name:	Water Route
Description:	A route in a designated area within a define limits which have been accurately surveyed for clearance of sea bottom and submerged obstacle to a minimum indicated depth of water for safe passage of ships.
Feature Class:	Line
Possible Attribute:	Name (NAM), Water Route Usage (WRU)

U – UTILITY

UA – Electricity

Feature Code:	**UA0010**
Feature Name:	Power Line
Description:	Cables that carry electricity power.
Feature Class:	Line
Possible Attribute:	Name (NAM), Grade Location (GRL) Power Line Characteristics (PLC), Power Line Type (PLT), Voltage (VLT)

Feature Code:	**UA0020**
Feature Name:	Street Light
Description:	Structures that provide lighting to streets.
Feature Class:	Point
Possible Attribute:	Name (NAM), Street Light Category (SLC)

Feature Code:	**UA0030**
Feature Name:	Power Station
Description:	Installations that generate electricity power.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Power Station Type (PST)

Feature Code:	**UA0040**
Feature Name:	Substation
Description:	Installations that transform electric voltage from one level to another.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Substation Category (SSC)

Feature Code:	**UA0050**
Feature Name:	Pole
Description:	Structure made of wood/iron/concrete to support overhead cables.
Feature Class:	Point
Possible Attribute:	Name (NAM), Pole Usage (POU)

Feature Code:	**UA0060**
Feature Name:	Feeder Pillar
Description:	Equipments that branches low voltage underground cables single or dual to a multiple.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UA0070**
Feature Name:	Pylon
Description:	Structure made of iron or concrete to support cables for electric power transmission and movement of cable cars.
Feature Class:	Point
Possible Attribute:	Name (NAM), Pylon Usage (PYU)

Feature Code:	**UA0080**
Feature Name:	Meter
Description:	A gadget used to record electricity flow and usage.
Feature Class:	Point
Possible Attribute:	Name (NAM)

UB – Telecommunication

Feature Code:	**UB0010**
Feature Name:	Telecommunication Exchange Coverage
Description:	Service area for telephone exchange/switch.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0020**
Feature Name:	Manhole
Description:	End of the duct path where the underground cable is interconnected.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UB0030**
Feature Name:	Pier Crossing
Description:	A structure crossing a small river or monsoon drain to support cable duct.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0040**
Feature Name:	Telecommunication Tunnel
Description:	Replacement of the duct ways to cater for the high number of cables (more than 48 cables).
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0050**
Feature Name:	Duct Way
Description:	A cylindrical conduit provided between two manholes to pull cables and prevent from mechanical damage.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0060**
Feature Name:	Cabinet
Description:	A passive cross connection point of main cables and distribution cables and installed, mostly, at road junctions.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UB0070**
Feature Name:	Distribution Side Cable
Description:	Distribution cables that start from Cabinet and end at the Distribution Point.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0080**
Feature Name:	Exchange Side Cable
Description:	Cable that starts from telephone exchange and terminates at Cabinet, DDP, Stump or Stub.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0090**
Feature Name:	Intermediate Distribution Frame
Description:	Installed in the telephone exchanger or subscriber premises to interconnect external cable.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UB0100**
Feature Name:	Tie Cable
Description:	Cable connecting exchange to exchange, cabinet to cabinet, or Distribution Point to Distribution Point.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0110**
Feature Name:	Fiber Optic Cable
Description:	Cable that carries the light signal.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UB0120**
Feature Name:	Remote Terminal
Description:	Place to terminate the fiber optic cable where the light signal is converted to current on individual channel.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UB0130**
Feature Name:	Earth Satellite
Description:	Microwave station, which accommodate the parabolic antenna to receive/transmitted signal to/from satellite.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UB0140**
Feature Name:	VSAT Station
Description:	Microwave station, which accommodate the parabolic antenna.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UB0150**
Feature Name:	Cellular Radio Base Station
Description:	Base station where the radio signal starts.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UB0160**
Feature Name:	Exchange Building
Description:	Building that accommodates the switching equipment and cables.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UB0170**
Feature Name:	Hill Station
Description:	Microwave station where the microwave signal start and end.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code: **UB0180**
Feature Name: Radio Station (Telecommunication).
Description: Refer also as Hill station
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0190**
Feature Name: Antenna Tower
Description: Tower or structure to mount an antenna.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0200**
Feature Name: Transmitter
Description: Transmission Equipment.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0210**
Feature Name: Receiver
Description: Receiving Equipment.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0220**
Feature Name: Repeater
Description: Repeater Equipment.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0230**
Feature Name: Wireless Tower
Description: Tower or structure to mount the antenna for wireless telecommunication.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0240**
Feature Name: Telecom Tower
Description: Tower or structure to mount the antenna for telecom operation.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0250**
Feature Name: Telecom Line
Description: Telecommunication cable belonging to Syarikat Telekom Malaysia.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0260**
Feature Name: Rill Will Antenna
Description: Radio in Local Loop Antenna, which extract the radio signal.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0270**
Feature Name: Rill Will RBS
Description: Radio in Local Loop Base Station where the radio signals start.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0280**
Feature Name: Rill Will Transmitter
Description: Radio in Local Loop equipment that transmits the signal through antenna.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UB0290**
Feature Name: Rill Will Receiver
Description: Radio in Local Loop equipment that receives the signal through antenna.
Feature Class: Point
Possible Attribute: Name (NAM)

UC – Water Supply

Feature Code: **UC0010**
Feature Name: Bunded Storage
Description: Storage facilities for storing water resources.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **UC0020**
Feature Name: Water Treatment Plant
Description: An engineering structure built for treatment of raw water.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0030**
Feature Name: Water Intakes
Description: An engineering structure built for river water extraction.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0040**
Feature Name: River Gate
Description: An engineering structure built across a river to raise the water level for river water extraction.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0050**
Feature Name: Raw Water Pipe
Description: Main pipes conveying raw water from intake to treatment plant.
Feature Class: Line
Possible Attribute: Name (NAM)

U – UTILITY

UC – Water Supply

Feature Code:	**UC0060**
Feature Name:	Service Reservoir
Description:	Water storage structure for balancing inflows and water treatment.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH), Reservoir Type (RVT), Custodian (CUS), Authority (AUT)

Feature Code:	**UC0070**
Feature Name:	Water Pump
Description:	Equipment for pumping water.
Feature Class:	Point, Line
Possible Attribute:	Name (NAM), Water Pump Category (WPC), Water Pump Type (WPT)

Feature Code:	**UC0080**
Feature Name:	Pump House
Description:	Building constructed to house water pumps and its mechanical and electrical facilities.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Pump House Usage (PHU)

Feature Code:	**UC0090**
Feature Name:	Booster Pump
Description:	Equipment for pumping treated water for boosting water pressure.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UC0100**
Feature Name:	Suction Tank
Description:	Storage structure for storing water to be pumped.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UC0110**
Feature Name:	Water Pipe
Description:	A string of interconnected pipes use for the transporting water.
Feature Class:	Line
Possible Attribute:	Name (NAM), Water Pipe Type (WIT), Grade Location (GRL)

Feature Code:	**UC0120**
Feature Name:	Water Valve
Description:	Water facilities for controlling water flow, air and pressure.
Feature Class:	Point
Possible Attribute:	Name (NAM), Water Valve Type (WVT)

Feature Code: **UC0130**
Feature Name: Fire Hydrant
Description: Water facilities along main pipe for fire fighting.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0140**
Feature Name: Water Meter
Description: Meter used to record water flow and usage.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0150**
Feature Name: Remote Terminal Unit
Description: Communication facilities for receiving and transmitting signals.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0160**
Feature Name: Water Quality Monitoring System
Description: Facilities to monitor water quality.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0170**
Feature Name: Chlorine Booster Station
Description: Facilities for boosting chlorine level.
Feature Class: Point
Possible Attribute: Name (NAM)

Feature Code: **UC0180**
Feature Name: Water Tunnel
Description: Underground aqueduct for raw water transmission.
Feature Class: Line
Possible Attribute: Name (NAM)

Feature Code: **UC0190**
Feature Name: Supply Zone
Description: Supply area of a service reservoir or a distribution main.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM), Supply Zone Type (SZT)

Feature Code: **UC0200**
Feature Name: Non-Revenue Water Control Zone
Description: A definite supply area where non-revenue water control measure is imposed.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **UC0210**
Feature Name: Metering Zone
Description: An area representing a group of water meters.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

UD – Oil and Gas

Feature Code:	**UD0010**
Feature Name:	Processing Plant
Description:	A complex where raw oil/gas is processed.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Processing Plant Type (PRT)

Feature Code:	**UD0020**
Feature Name:	City Gate Station
Description:	A regulating and metering stn located just after a tee valve off the PGU pipeline owned by Petronas which links up to GMSB's gas pipeline distribution system where the gas pressure of 500 - 800 psi is reduced to 260 psi. It also acts as a Custody Transfer Point for natural gas, between PGB and GMSB.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UD0030**
Feature Name:	Odoriser Station
Description:	An odorant dispensing facility located immediately after the City Gate Station where odorant is injected into the gas to odorise it so as to meet safety requirements before supplying to customers.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UD0040**
Feature Name:	District Station
Description:	A regulating station where the feeder pipeline gas pressure is reduced from 260 psi to 60 psi before it enters GMSB's distribution pipeline.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UD0050**
Feature Name:	Regulating Station
Description:	A regulating station where GMSB's distribution pipeline gas pressure of 60 psi is reduced to 4.3 psi before supply to the commercial customers.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UD0060**
Feature Name:	Area Station
Description:	A regulating station where GMSB's distribution pipeline gas pressure of 60 psi is reduced to 0.43 psi before supply to residential customers.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UD0070**
Feature Name:	Service Station
Description:	A station with gas measurement and pressure regulating facilities where gas is received directly from the gas pipeline distribution system and which thereafter delivers the gas through the customer owned internal piping to the gas appliances.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UD0080**
Feature Name:	Oil and Gas Pipeline
Description:	A pipeline where oil/gas is transported.
Feature Class:	Line
Possible Attribute:	Name (NAM), Pipe Line Type (PPT), Grade Location (GRL)

Feature Code:	**UD0090**
Feature Name:	Oil and Gas Valve
Description:	Facilities along oil/gas pipelines for controlling its flow.
Feature Class:	Point
Possible Attribute:	Name (NAM)

UE – Broadcasting

Feature Code:	**UE0010**
Feature Name:	Radio Station
Description:	A complex where signals for radio broadcasting is managed.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UE0020**
Feature Name:	Television Station
Description:	A complex where signals for television broadcasting is managed.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UE0030**
Feature Name:	Transmission Station
Description:	A complex where signals for radio or television broadcasting is transmitted.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UE0040**
Feature Name:	Monitoring Station
Description:	Facility where off air signals are intercepted and processed to monitor its contents and quality.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UE0050**
Feature Name:	Broadcasting Coverage Area
Description:	An area of coverage of certain band of signal.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

UF – Sewerage

Feature Code:	**UF0010**
Feature Name:	Sewerage Treatment Plant
Description:	Site that contains facilities for treating sewage.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Sewerage Treatment Plant Type (STT)

Feature Code:	**UF0020**
Feature Name:	Sewerage Pump Station
Description:	Site that contains facilities for pumping sewage to the sewerage treatment plant.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**UF0030**
Feature Name:	Sewerage Manhole
Description:	Opening at various locations along sewerage lines for maintenance purposes.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UF0040**
Feature Name:	Sewerage Pipe
Description:	Pipes that transport sewage.
Feature Class:	Line
Possible Attribute:	Name (NAM), Sewerage Pipe Diameter (SPD), Sewerage Pipe Material (SPM), Sewerage Pipe Type (SPT), Grade Location (GRL)

UG – Waste Management

Feature Code:	**UG0010**
Feature Name:	Transportation Route
Description:	A route taken to by transportation vehicles to transfer solid waste to its final disposal sites.
Feature Class:	Line
Possible Attribute:	Name (NAM), Waste Type (WAT)

Feature Code:	**UG0020**
Feature Name:	Waste Treatment Plant
Description:	An installation for processing of waste.
Feature Class:	Point
Possible Attribute:	Name (NAM), Waste Type (WAT)

Feature Code:	**UG0030**
Feature Name:	Transfer Station
Description:	A facility where waste is taken from smaller collection vehicles and placed in larger vehicles for transport, including truck trailers, railroad cars or barges to final disposal sites.
Feature Class:	Point
Possible Attribute:	Name (NAM), Waste Type (WAT)

Feature Code:	**UG0040**
Feature Name:	Incineration Plant
Description:	A facility in which solid waste is combusted.
Feature Class:	Point
Possible Attribute:	Name (NAM), Waste Type (WAT)

Feature Code:	**UG0050**
Feature Name:	Secured Landfill
Description:	A disposal facility, designed to permanently isolate wastes from the environment. This entails burial of the wastes in a landfill that includes clay and/or synthetic liners, leachate collection, gas collection (in cases where gas is generated), and an impermeable cover.
Feature Class:	Point, Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM), Waste Type (WAT)

Feature Code:	**UG0060**
Feature Name:	Collection Route
Description:	A path regularly followed by a collection vehicle to collect solid waste.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**UG0070**
Feature Name:	Bin Point
Description:	A point where storage containers are placed for collection services of solid waste.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UG0080**
Feature Name:	Recycling Centers
Description:	A facility to which individuals bring their recyclable items to be recycled.
Feature Class:	Point
Possible Attribute:	Name (NAM)

Feature Code:	**UG0090**
Feature Name:	Transfer Haulage Network
Description:	Supplemental transportation systems employed to reduce hauling costs by using semi - trailers, railroad cars, or barges to haul from a central point(s) within a jurisdiction to one or more distant solid waste management facilities. The act of transfer includes unloading collection vehicles at the transfer station, loading solid waste from the transfer station to the transfer vehicles, and hauling the solid waste to distant solid waste management facilities.
Feature Class:	Line
Possible Attribute:	Name (NAM)

UH – Meteorological

Feature Code:	**UH0010**
Feature Name:	Meteorological Station
Description:	Meteorological observation stations in Malaysia.
Feature Class:	Point
Possible Attribute:	Name (NAM), Meteorological Station Category (MSC), Station Identification Number (IDN)

V – VEGETATION

VA – Crop Land (Perennials)

Feature Code:	**VA0010**
Feature Name:	Oil Palm
Description:	An area planted primarily with oil palm (Elaeis Guinensis).
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VA0020**
Feature Name:	Coconut
Description:	An area planted primarily with coconuts (Cocos nucifera).
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VA0030**
Feature Name:	Rubber
Description:	An area primarily planted with rubber trees (Hevea brasiliensis).
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VA0040**
Feature Name:	Orchard
Description:	An area covered by systematic plantings of trees which yield fruits, nuts or other products.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code: **VA0050**
Feature Name: Tea
Description: An area planted primarily with tea (Camellia sinensis).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VA0060**
Feature Name: Cocoa
Description: An area planted primarily with cocoa (Theobroma cacao).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VA0070**
Feature Name: Coffee
Description: An area planted primarily with coffee (Coffea spp.).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VA0080**
Feature Name: Sago
Description: An area planted primarily with sago palms (Metroxylon sagu).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VA0090**
Feature Name: Sugarcane
Description: An area planted primarily with sugarcane (Saccharum spp.).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VA0100**
Feature Name: Pasture
Description: An area planted primarily with grass either for grazing or fodder.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VA0110**
Feature Name: Mixed Perennial Crops
Description: An area planted with more than one type of perennial crops.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH), Crop Mix (CRM)

VB – Crop Land (Annuals)

Feature Code: **VB0010**
Feature Name: Banana
Description: An area planted primarily with banana (Musa spp.).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VB0020**
Feature Name: Wet Paddy
Description: An area planted primarily with paddy (Oryza sativa) under flooded condition.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VB0030**
Feature Name: Dry Paddy
Description: An area planted primarily with paddy under dry condition(no flooding).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VB0040**
Feature Name: Pineapple
Description: An area planted primarily with pineapple (Ananas comosus).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2)

Feature Code: **VC0050**
Feature Name: Mixed Annual Crops
Description: An area planted with more than one type of annual crops.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH), Crop Mix (CRM)

VC – Crop Land (Cash-Crops)

Feature Code: **VC0010**
Feature Name: Tobacco
Description: An area planted primarily with tobacco (Nicotiana tabacum).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (m^2) (ARM)

Feature Code: **VC0020**
Feature Name: Pepper
Description: An area planted primarily with pepper vines (Piper nigrum).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VC0030**
Feature Name: Vegetable
Description: An area planted primarily with market vegetables.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VC0040**
Feature Name: Tapioca
Description: An area planted primarily with tapioca / cassava (Manihot spp.).
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VC0050**
Feature Name: Mixed Cash Crops
Description: An area planted with more than one type of cash crops.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH), Crop Mix (CRM)

VD – Natural Vegatation (Dryland)

Feature Code: **VD0010**
Feature Name: Montane Forest
Description: A forest type occurring about 1200 M and above sea level.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH), Montane Forest Type (MFT)

Feature Code: **VD0020**
Feature Name: Mixed Dipterocarp Forest
Description: A forest type dominated by the indigenous Dipterocarp tree species occurring between about 30 – 1200 M above sea level.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH), Mixed Dipterocarp Forest Type (MDF)

Feature Code: **VD0030**
Feature Name: Heath Forest (Kerenggas)
Description: A forest type that develops mainly over coarse siliceous deposits which give rise to podzolic soils. It is dominated by dense, small and low canopy pole trees.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VD0040**
Feature Name: Limestone Forest
Description: A forest type, mostly small tree species and scrubs, found on limestone rock, hills and surroundings.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VD0050**
Feature Name: Quartz Forest
Description: A forest type, mostly scrubs found on quartz ridges and surroundings.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH)

Feature Code: **VD0060**
Feature Name: Planted Forest
Description: An area planted with tree species and managed as forest plantation.
Feature Class: Polygon
Possible Attribute: Name (NAM), Area Measured (h) (ARH), Planted Forest Type (PFT)

VE – Natural Vegetation (Wetland)

Feature Code:	**VE0010**
Feature Name:	Swamp Forest
Description:	A forest type found along upper reaches of rivers or riverine freshwater flats.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH), Swamp Forest Type (SFT), Swamp Type (SWT)

Feature Code:	**VE0020**
Feature Name:	Mangrove Forest
Description:	A forest type found on coastal or estuarine areas.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VE0030**
Feature Name:	Riverian Riparian Forest
Description:	A forest type found on riverbanks and low-lying areas beyond the banks that are liable to flooding.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VE0040**
Feature Name:	Beach Forest
Description:	A forest type found on coastal sandy plain areas primarily dominated by Casuarina equisetifolia.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VE0050**
Feature Name:	Coastal Hill Forest
Description:	A forest type found on hills and cliffs of seacoast of islands.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

VF – Natural Vegetation (Miscellaneous)

Feature Code:	**VF0010**
Feature Name:	Primary Forest
Description:	A virgin or logged over forest more than 30 years ago that is normally rich in timber trees composition and forest biodiversity.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0020**
Feature Name:	Secondary Forest
Description:	A regenerated or disturbed forest due to man-made activities such as shifting cultivation, farming or logging that is normally poor in timber trees composition and forest biodiversity.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0030**
Feature Name:	Screw Pine (Mengkuang)
Description:	An area grown with plants of the (Pandanus spp.). Locally known as 'mengkuang' where leaves are normally long and broad with spikes.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0040**
Feature Name:	Lalang
Description:	An area dominated by Lalang (imperata cylindrica).
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0050**
Feature Name:	Grass
Description:	An area dominated by grass that are not pasture land.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0060**
Feature Name:	Riung
Description:	An area dominated by Riung, normally found along river banks.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0070**
Feature Name:	Tebrau
Description:	An area dominated by Tebrau, normally found along riverbanks.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0080**
Feature Name:	Bamboo
Description:	An area dominated by bamboo.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0090**
Feature Name:	Scrub or Renek
Description:	An area covered by mixed shrub vegetation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0100**
Feature Name:	Cleared Land
Description:	An area cleared of vegetation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

Feature Code:	**VF0110**
Feature Name:	Barren Land
Description:	An area occurring naturally without vegetation.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (h) (ARH)

X – SPECIAL USE (Dataset-specific)

XA – Terrain Analysis Dataset

Feature Code:	**XA0010**
Feature Name:	Disturbed Soil
Description:	An area that has been so disturbed by human activity that no single soil type can be accurately identified. These areas may include built-up areas, strip mines, landfills, railroad yards, etc.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**XA0020**
Feature Name:	Slope Polygon
Description:	An area enclosing a group of slope values falling within a set range.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

Feature Code:	**XA0030**
Feature Name:	Aspect Polygon
Description:	An area enclosing a group of aspect values falling within a set range.
Feature Class:	Polygon
Possible Attribute:	Name (NAM), Area Measured (m^2) (ARM)

XB – Meteorological Dataset

Feature Code:	**XB0010**
Feature Name:	Temperature Isoline
Description:	A line of the same temperature values.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**XB0020**
Feature Name:	Wind Speed Isoline
Description:	A line of the same wind speed values.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**XB0030**
Feature Name:	Relative Humidity Isoline
Description:	A line of the same humidity values.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code:	**XB0040**
Feature Name:	Evaporation Isoline
Description:	A line of the same evaporation values.
Feature Class:	Line
Possible Attribute:	Name (NAM)

Feature Code: **XB0050**
Feature Name: Total Rainfall Isoline
Description: A line of the same total rainfall values.
Feature Class: Line
Possible Attribute: Name (NAM)

Z – GENERAL

ZA – Control Point

Feature Code: **ZA0010**
Feature Name: Global Positioning System (GPS) Station
Description: Control points established by GPS survey.
Feature Class: Point
Possible Attribute: Name (NAM), Global Position System Active Station (GAS), Monument Station (MOS), Global Position Station System Class (GPC), Z Ellipsoidal (ZEL), Z Orthometric (ZOR), Z Global Positioning System (ZGP), Station Identification Number (IDN)

Feature Code: **ZA0020**
Feature Name: Survey Point
Description: Control points established by survey techniques other than GPS.
Feature Class: Point
Possible Attribute: Name (NAM), Survey Point Type (SUT), Z Orthometric (ZOR), Z Global Positioning System (ZGP), Station Identification Number (IDN)

Feature Code: **ZA0030**
Feature Name: Laplace Station
Description: Control points established by astronomical observations.
Feature Class: Point
Possible Attribute: Name (NAM), Station Identification Number (IDN)

Feature Code: **ZA0040**
Feature Name: Trigonometry Station
Description: Survey stations established through trigonometric observation in the triangulation network.
Feature Class: Point
Possible Attribute: Name (NAM), Trigonometry Station Type (TST), Z Orthometric (ZOR), Z Global Positioning System (ZGP), Station Identification Number (IDN)

Feature Code: **ZA0050**
Feature Name: Height Point
Description: Points with height values.
Feature Class: Point
Possible Attribute: Name (NAM), Height Point Type (HPT), Z Orthometric (ZOR), Z Global Positioning System (ZGP), Station Identification Number (IDN)

Feature Code:	**ZA0060**
Feature Name:	Gravity Reference Point
Description:	Control points established using gravimeter and tied to IGNS.
Feature Class:	Point
Possible Attribute:	Name (NAM), Gravity Reference Point (GRP), Z Orthometric (ZOR), Z Global Positioning System (ZGP), Station Identification Number (IDN)

Feature Code:	**ZA0070**
Feature Name:	Base Point
Description:	Control points established at the outer most limit of a country for the purpose of defining its maritime boundaries.
Feature Class:	Point
Possible Attribute:	Name (NAM), Station Identification Number (IDN)

Feature Code:	**ZA0080**
Feature Name:	International Boundary Marker
Description:	Boundary markers established in a joint survey to demarcate the international boundary between the countries concerned.
Feature Class:	Point
Possible Attribute:	Name (NAM), Marker Type (MKT), Z Orthometric (ZOR)

Feature Code:	**ZA0090**
Feature Name:	State Boundary Marker
Description:	Boundary markers established to demarcate the boundary between states.
Feature Class:	Point
Possible Attribute:	Name (NAM), Marker Type (MKT), Z Orthometric (ZOR)

Annex B
(normative)

Attribute Codes

AAE Anomaly Area Element

A set of characters which enables an element(s) to be uniquely identified

AAE 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

ADC Agricultural Drainage Category

Tabulates the size of drain

ADC 1 Main/Primary
ADC 2 Secondary
ADC 3 Collector/ Feeder

ADS Agricultural Drainage Structures Purpose

Purpose of structures

ADS 1 Drainage Control
ADS 2 Drainage Crossing
ADS 3 Drainage Control cum Crossing
ADS 4 Drainage Protection

AEL Anomaly elevation

Anomaly derived from airborne or ground survey

AEL 1 Ground survey
AEL 2 Airborne survey

AIA Airspace Identification Attributes

A set of characters which enables an individuals airspace to be uniquely identified

AIA 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			12 Characters

ALN Air Route Segment Length

Length of an individual air route segment measured in nautical miles

ALN 0 Actual Value

Units	Format	Range	Increment	Maximum Character
NM	Short Integer			

ALT Argillaceous Rock Type

Type of an argillaceous rock

ALT 1 Mudstone
ALT 2 Shale
ALT 3 Siltstone

AMT Armour Type

Type of materials used as a breakwater

AMT 1 Concrete
AMT 2 Rock
AMT 3 Steel
AMT 4 Wood
AMT 5 Mixed

AMY Age in Million Years

Age of a feature measured in million years

AMY 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Million Years	Floating			

ANN Anomaly Number

Reference number for anomaly identified

ANN 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			

ANT Anomaly Type

Type of an anomaly

ANT	1	Stream sediment
ANT	2	Stream concentrate
ANT	3	Water
ANT	4	Rock
ANT	5	Soil
ANT	6	Gravity
ANT	7	Magnetic
ANT	8	Electromagnetic
ANT	9	Radiometric

APE Age in Periods

Age of a feature measured in periods

APE 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Periods	Floating			

APT Airfield Type

Type of an airfield

APT	1	Major Airfield
APT	2	Minor Airfield
APT	3	Light/General Aviation Aircraft Operating Only
APT	4	Seaplane Base
APT	5	Glider Site
APT	6	Hang Glider Site
APT	7	Winch Launched Hang Glider Site
APT	8	Helicopter Site
APT	9	Emergency
APT	10	Short Take-off and Landing (STOL)

AQD Aquifer Depth

Identifies the depth of an aquifer

AQD 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Meters	Floating			

AQM Aquifer Material

Identifies the host materials in an aquifer

AQM	1	Sand
AQM	2	Gravel
AQM	3	Pebble
AQM	4	Alluvial
AQM	5	Peat
AQM	6	Hardrock

AQT Aquifer Type

Type of an aquifer

AQT	1	Confined
AQT	2	Semi confined
AQT	3	Unconfined
AQT	4	Semi unconfined

ARH Area Measure (h)

The area within the delineation of a feature, in hectares

ARH 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Hectares	Floating			

ARK Area Measure (km²)

The area within the delineation of a feature, in sq. kilometers

ARK 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Sq. Kilometers	Floating			

ARM Area Measure (m²)

The area within the delineation of a feature, in sq. meters

ARM 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Sq. Meters	Floating			

ART Arenaceous Rock Type

Type of an arenaceous rock

ART	1	Sandstone
ART	2	Quartzose Sandstone

ARU Airspace Route Usage

A specified route designed for channeling the flow of a traffic as necessary for the provision of air traffic services

ARU	1	Airway
ARU	2	Air Route
ARU	3	Royal Low Level Corridor
ARU	4	Advisory
ARU	5	Direct
ARU	6	Military
ARU	7	Oceanic
ARU	8	Helicopter Route
ARU	9	Area Navigation
ARU	10	Low Flying Route
ARU	11	Royal Helicopter Route

ASC Air Space Category

Category of an air space

ASC	1	Controlled
ASC	2	Uncontrolled
ASC	3	Advisory
ASC	4	Flight Information Region (FIR)
ASC	5	Control Zone (CTR)
ASC	6	Terminal Control Area (TMA)
ASC	7	Air Traffic Zone (ATZ)

AUL Airspace Use Limitations

Airspace where activities must be confined because of their nature and/or where limitations may be imposed upon aircraft operations

AUL	1	Danger Area
AUL	2	Prohibited Area
AUL	3	Restricted Area
AUL	4	Alert Area
AUL	5	Warning Area
AUL	6	Defense Area
AUL	7	Controlled Firing Area
AUL	8	Parachute Drop Zone
AUL	9	Hazard to Aircraft
AUL	10	Gas Venting Station

AUL	11	Air Exercise Area
AUL	12	Bird Sanctuary
AUL	14	Bird Hazard Area
AUL	15	Health Resorts/Medical Establishments
AUL	16	Low Flying Avoidances
AUL	17	Military Operating Area
AUL	18	Non-free Flying Area
AUL	19	Caution Area
AUL	20	Flying Training Area

AUT Authority

Identifies the managing authority of a feature such as road, quarry authorized area, quarry permit area, mineral exploration block, geological mapping area, etc.

AUT 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			

BA1 Building Name

The name of a building

BA1 0 Actual Value.

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

BA2 Building Number

The number of a building on a street of an address

BA2 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

BA3 Street Name

The name of a street of an address

BA3 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

BA4 Post Code

Post code of an address

BA4 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Post Code	ASCII Text			5 Characters

BA5 State Name

The name of a state of an address

BA5 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

BAT Bridge Abutment Type

Type of end supports of a bridge

BAT	1	Bank Seat
BAT	2	Retaining Wall
BAT	3	Pile Bents
BAT	4	R.E. Walls
BAT	5	Multi-Columns
BAT	6	Hammer Head

BCR Bridge Crossing

Identifies the feature the bridge crosses

BCR	1	Road
BCR	2	Railway
BCR	3	River

BDT Boundary Type

Type of a boundary

BDT	1	Land Boundary
BDT	2	Maritime Boundary

BET Beach Type

Classification of an unconsolidated material found at a beach

BET	1	Pebbles
BET	2	Sand
BET	3	Mud

BJT Bedding and Jointing Type

Type of a bedding or jointing

BJT	1	Inclined
BJT	2	Horizontal
BJT	3	Vertical

BKT Bridge Deck Type

Type of slab and beams or girders used to form the flooring system of a bridge

BKT	1	Reinforced Concrete Beam
BKT	2	Pre-cast Reinforced Concrete Beam
BKT	3	Pre-Stressed Concrete Beam
BKT	4	Pre-Stressed Inverted Tee Beam
BKT	5	Reinforced Concrete Slab
BKT	6	Voided Concrete Slab
BKT	7	Concrete Box Girder
BKT	8	Steel Beam and Concrete Slab
BKT	9	Steel Beam Encased and Slab
BKT	10	Steel Buckle Plate
BKT	11	Steel Trough
BKT	12	Timber Deck

BMT Bridge Construction Material Type

Type of construction materials used in the construction of a bridge

BMT	1	Concrete
BRT	2	Steel
BMT	3	Masonry
BMT	4	Timber

BRS Bridge Swingability

Identifies whether or not a bridge can be swung in a horizontal or vertical plane for safe passage of tall vessels

BRS	1	Bridge can be swung
BRS	2	Bridge cannot be swung

BST Bridge Structural System Type

Type of structural system used the construction of a bridge

BST	1	Simply Supported
BST	2	Continuous
BST	3	Cantilever
BST	4	Frame
BST	5	Arches
BST	6	Trusses
BST	7	Suspension
BST	8	Cabled-Stayed
BST	9	Culverts

BUP Buoy Pattern Category

The color breakdown of pattern of a buoy

BUP	1	Checkered
BUP	2	Diagonal Bands
BUP	3	Single Color
BUP	4	Horizontal Bands
BUP	5	Vertical Stripes
BUP	6	Squared
BUP	7	Horizontal bands from top to bottom

BUT Buoy Type

Type of a buoy

BUT	1	Conical
BUT	2	Can
BUT	3	Spherical
BUT	4	Pillar
BUT	5	Spar

BWM Breakwater Material

Type of materials used as a breakwater

BWM	1	Concrete
BWM	2	Rock
BWM	3	Steel
BWM	4	Wood

BWT Breakwater Type

Type of a breakwater

BWT	1	Attached
BWT	2	Detached

CAF Canal Function

Function of a canal

CAF	1	Conveyance
CAF	2	Regulating
CAF	3	Protective
CAF	4	Water Measuring
CAF	5	Energy Dissipators

CAT Canal Type

Type of a canal

CAT	1	Earth
CAT	2	Concrete

CBT Commercial Building Type

Type of buildings used for commercial related activities

CBT	1	Detached
CBT	2	Semi Detached
CBT	3	Terrace/Link
CBT	4	Multi Storey
CBT	5	Complex
CBT	6	Lock-up

CBU Commercial Building Usage

Type of usage of a commercial building

CBU	1	Apartel
CBU	2	Bank
CBU	3	Cineplex
CBU	4	Entertainment Center
CBU	5	Hotel
CBU	6	Market
CBU	7	Office
CBU	8	Restaurant
CBU	9	Retail
CBU	10	Shop House
CBU	11	Shop Office
CBU	12	Stall
CBU	13	Supermarket/Hypermarket
CBU	14	Shopping Arcade/Stall
CBU	15	Petrol Station
CBU	16	Parking

CCT Cable Car Type

Type of a cable car

CCT	1	Track
CCT	2	Suspended

CES Coastal Erosion Status

Status of a coastal erosion

CES	1	Requires immediate protection works
CES	2	Requires protection works in 5 to 10 years time
CES	3	No protection works required

CLI Contour Line Index

Identifies whether or not a contour line is an index line

CLI	1	Yes
CLI	2	No

CLT Contour Line Type

Type of line for a contour line

CLT	1	Firmline
CLT	2	Formline

CLV Contour Line Value

Value of a contour line

CLV	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Meters	Short Integer			

CMT Contact Metamorphic Rock LType

Type of contact metamorphic rock

CMT	1	Hornfels
CMT	2	Greisen
CMT	3	Skarn

COL Collector

Name of a sampling collector

COL	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

COT Coast Type

Type of the edge margin of land next to the sea

COT	1	Cliff
COT	2	Steep
COT	3	Flat
COT	4	Rocky

CRM Crop Mix

Identifies the mix of crops in an area

CRM 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

CRT Calcareous Rock Type

Type of a calcareous rock

CRT	1	Limestone
CRT	2	Dolomite

CST Construction Suitability Class Type

Type of construction suitability classes

CST	1	Class I
CST	2	Class II
CST	3	Class III
CST	4	Class IV

CUS Custodian

The individual, government or organisation which is the custodian of the structures or facilities.

CUS	1	Federal Government Department
CUS	2	State Government Agency
CUS	3	Local Authority
CUS	4	Cooperative
CUS	5	Private

CWT Carriageway Type

Type of a carriageway

CWT	1	Single
CWT	2	Dual

CYT Clay Type

Type of a clay

CYT	1	Undifferentiated
CYT	2	Marine
CYT	3	Non-marine

DAE Date End

Identifies the end date of an event

DAE 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Date	dd/mm/yyy			

DAS Date Start

Identifies the starting date of an event

DAS 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Date	dd/mm/yyyy			

DAT Date

Identifies the date of an event

DAT 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Date	dd/mm/yyyy			

DIP DIP

Angle of slope measured from a horizontal plane

DIP 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Degree	Floating			

DIS Discharge

The release or extraction of water from an aquifer

DIS 0 Actual Value

Units	Format	Range	Increment	Maximum Character
m3/hour	Floating			

DLT Dynamic Metamorphic Rocks Type

Type of dynamic metamorphic rock

DLT 1 Mylonite
DLT 2 Phyllonites
DLT 3 Cataclasites

DMS Dam Structures

The various types of structure constructed within the dam area

DMS 1 Spillway
DMS 2 Tunnel
DMS 3 Outlet
DMS 4 Saddle Dam

DMT Dam Type

Main materials used for the construction of a dam

DMT 1 Earth
DMT 2 Rockfill
DMT 3 Concrete

DMU Dam Usage

Function or usage of a dam

DMU 1 Irrigation
DMU 2 Water Supply
DMU 3 Electricity
DMU 4 Flood Mitigation
DMU 5 Multi Usage

DPT Depth

Vertical distance measured downward

DPT 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Meters	Floating			

DRC Drain Category

Category of a drain

DRC 1 Main
DRC 2 Secondary
DRC 3 Tertiary
DRC 4 Roadside

DRM Drill Method

The method of making inclined or vertical holes for logging and sample collection

DRM 1 Augering
DRM 2 Jetting
DRM 3 Drilling

DRS Drain Structures

Type of Structures

DRS 1 Outfall
DRS 2 Manhole
DRS 3 Traps/Screens
DRS 4 Culverts
DRS 5 Control Gate

DRU Drain Usage

Function of a drain

DRU 1 Flood Mitigation
DRU 2 Solid Waste Disposal
DRU 3 Effluent Quality Control

DRV Drain Conveyance

A conduit or channel for conveying surplus water away

DRV 1 Surface
DRV 2 Subsurface

EDB Educational Boarding Facilities

Identifies whether an educational set up has a full or semi boarding facility

EDB	1	Full Boarding
EDB	2	Semi Boarding

EDC Educational Category

Category of an educational institution

EDC	1	Government
EDC	2	Private

EDL Educational Level

The level of an educational institution

EDL	1	Pre School
EDL	2	Primary
EDL	3	Secondary
EDL	4	College
EDL	5	University College
EDL	6	University

EDS Educational Stream

The stream of an educational institution

EDS	1	Technical
EDS	2	Vocational
EDS	3	Religious
EDS	4	Science
EDS	5	Military College
EDS	6	Special/Spastic
EDS	7	National
EDS	8	Chinese
EDS	9	Tamil
EDS	10	International

EDT Educational Building Type

Type of an educational building

EDT	1	Detached
EDT	2	Semi Detached
EDT	3	Terrace/Link
EDT	4	Multi Storey
EDT	5	Complex

EHP Exploration Hole Purpose

Identifies the purpose of an exploration hole

EHP	1	Downhole logging
EHP	2	Sampling

EMP Embankment Purpose

Identifies the purpose of the embankment

EMP	1	Flood
EMP	2	Salt Water Intrusion
EMP	3	Road
EMP	4	Railway

EMT Earth Material Type

Type of clay and sand extracted

EMT	1	Earth
EMT	2	Common clay
EMT	3	Ball clay
EMT	4	Marine clay
EMT	5	Montmorillonite
EMT	6	Kaolin
EMT	7	Construction sand
EMT	8	Silica sand

EST Erosion Type

Type of an erosion

EST	1	Sheet
EST	2	Rill
EST	3	Gully

FLT Folding Type

Type of a folding

FLT	1	Anticline
FLT	2	Syncline
FLT	3	Overturned
FLT	4	Recumbent
FLT	5	Boxfold

FNO Field Number

Non unique reference number of a feature, usually assigned to an area or a project

FNO	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			

FOD Fold Direction

Angle of plunge with respect to horizontal

FOD	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Degree	Floating			

FOH Fossil Habitat

Reflect the living environment of a fossil

FOH	1	Marine
FOH	2	Brackish water
FOH	3	Fresh water
FOH	4	Continental

FOS Fossils

Assemblage of fossils found in a lithological unit

FOS	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

FOT Fossil Type

Type of a fossil

FOT	1	Fauna
FOT	2	Flora
FOT	3	Trace
FOT	4	Fossil mixed

FOX Fold Axis

The direction of fold axis with respect to north in clockwise direction

FOX 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Degree	Floating			

FTT Fishing Trap Type

A fence or enclosure set in water to catch fish

FTT 1 Kelong
FTT 2 Stackers

FTY Faulting Type

Type of a faulting

FTY 1 Normal
FTY 2 Wrench
FTY 3 Strike slip
FTY 4 Thrust
FTY 5 Transcurrent with displacement

GAC Geological Accuracy

Degree of accuracy of a geological boundary or feature

GAC 1 Observed
GAC 2 Defined
GAC 3 Approximate
GAC 4 Inferred

GAS Global Position System Active Station (MASS)

Primary class Global Positioning System reference stations tied to the International GPS framework whose data can be downloaded through JUPEM's web site for GPS post-processing

GAS 1 Active
GAS 2 Not Active

GEO Geologist

Name of the person in charge of the work

GEO 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

GEP Geochemical Survey Area Purpose

Identifies the purpose of a geochemical survey area

GEP	1	Mineral
GEP	2	Environment

GFN Geological Formation Name

Identifies the name of a geological formation

GFN	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			12 Characters

GHS Geohazard Status

Identifies the status of a geohazard

GHS	1	Occurred
GHS	2	Potential

GHT Geohazard Type

Type of a geohazard

GHT	1	Landslide
GHT	2	Sinkhole
GHT	3	Settlement
GHT	4	Rockfall
GHT	5	Erosion

GLT Groundwater Limit Type

Type of a groundwater limit

GLT	1	Salt-water interface
GLT	2	Hydraulic isopach

GPC Global Position Station System Class

Class of GPS point accuracy

GPC	1	Primary Global Position System Station
GPC	2	Secondary Global Position System Station
GPC	3	Tertiary Global Position System Station
GPC	4	Base Point Reference Station

GPM Geophysical Method

Method of geophysical investigation

GPM	1	Seismic
GPM	2	Surface gravity
GPM	3	Aeromagnetic
GPM	4	Surface magnetic
GPM	5	Electrical
GPM	6	Electromagnetic
GPM	7	Radiometric
GPM	8	Airborne electromagnetic
GPM	9	Airborne Radiometric
GPM	10	Airborne gravity
GPM	11	Downhole logging

GPT Geochemical Sample Point Type

Type of a geochemical sample point

GPT	1	Rock
GPT	2	Soil
GPT	3	Silt
GPT	4	Stream concentrate
GPT	5	Stream water

GRC Groundwater Potential Class

Identifies the class of a groundwater potential

GRC	1	A1
GRC	2	A2
GRC	3	B1
GRC	4	B2

GRL Grade Location

Identifies the location of a feature with respect to the ground

GRL	1	On ground
GRL	2	Underground
GRL	3	Elevated
GRL	4	Buried Underwater
GRL	5	Exposed Underwater

GRP Gravity Reference Point

Class of a gravity point accuracy

GRP	1	Absolute
GRP	2	First Order
GRP	3	Second Order
GRP	4	Third Order

GRT Gravel Type

Type of a gravel

GRT	1	Undifferentiated
GRT	2	Marine
GRT	3	Non-marine

GSC Geological Structure Category

Category of a geological structure

GSC	1	Foliation
GSC	2	Schistocity
GSC	3	Cleavage
GSC	4	Unconformity
GSC	5	Disconformity

GST Groundwater Station Type

Type of a groundwater station

GST	1	Piezometer
GST	2	Settlement gauge

HEI Height

Height of a feature, in meters

HEI	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Meters	Floating			

HNT Hydrogeological Natural Feature Type

Type of a hydrogeological natural feature

HNT	1	Spring
HNT	2	Artesian

HOR Host Rock

The type of rock in which groundwater accumulated

HOR	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

HPT Height Point Type

Type of point with height measurement

HPT	1	Spot Height (derived by photogrammetric method)
HPT	2	Bench Mark
HPT	3	Ground control point (derived by ground survey method)
HPT	4	Relative height point (derived by photogrammetric method)

HSC Historical Site Category

Category of a historical site

HSC	1	Archaeological
HSC	2	Fort
HSC	3	Castle
HSC	4	Grave
HSC	5	Well
HSC	6	Cave
HSC	7	Heritage

HST Hydrological Station Type

Type of a hydrological station

HST	1	Rainfall Station
HST	2	Water Level Station
HST	3	Telemetric Station
HST	4	Water Quality Station
HST	5	Stream flow Station
HST	6	Tidal Station
HST	7	Suspended Sediment Station
HST	8	Evaporation Station

HZT Hydrogeological Zone Type

Type of a hydrogeological zone

HZT	1	Well field
HZT	2	Aquifer zone
HZT	3	Protection zone
HZT	4	Vulnerability zone

ICC Irrigation Canal Category

Category of canals used for a water distribution

ICC	1	Main
ICC	2	Secondary
ICC	3	Tertiary
ICC	4	Quaternary

ICS Irrigation Canal Structures Purpose

Purpose of structures

ICS	1	Conveyance
ICS	2	Regulating
ICS	3	Water Measuring

IDC Category of Industry

Category of an industry

IDC	1	Light Industry
IDC	2	Medium Industry
IDC	3	Heavy Industry
IDC	4	Service Industry
IDC	5	Special Industry
IDC	6	Mining and Quarry

IDL Industry Permit Status

Identifies whether or not an industry is operating with a permit

IDL	1	With Permit
IDL	2	Without Permit

IDN Identification Number

Official number assigned to a feature for identification purpose

IDN	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			12 Characters

IDP Industrial Planned Category

Identifies whether or not an industry is planned

IDP	1	Planned
IDP	2	Unplanned

IDS Industry Tax Status

Identifies the tax status of an industry

IDS	1	Tax Free
IDS	2	Non Tax Free

IDT Industrial Building Type

Type of building used for industrial activities

IDT	1	Detached
IDT	2	Semi Detached
IDT	3	Terrace/Link
IDT	4	Multi Storey
IDT	5	Complex

IDU Industrial Usage

Type of uses of an industrial building

IDU	1	Workshop
IDU	2	Warehouse or Godown
IDU	3	Factory
IDU	4	Explosive Magazine

IGC Irrigation Scheme Category

Category of irrigation scheme

IGC	1	Granary
IGC	2	Mini Granary
IGC	3	Small Scheme

IGT Irrigation Scheme Type

Type of irrigation scheme

IGT	1	Gravity
IGT	2	Pumping
IGT	3	Mixed

INC Institutional Category

Category of an institution

INC	1	Government
INC	2	Private

INT Institutional Building Type

Identifies the type of building used for institutional purposes

INT	1	Detached
INT	2	Semi Detached
INT	3	Terrace/Link
INT	4	Multi-Storey
INT	5	Complex

INU Institutional Usage

Type of institutional uses of a building

INU	1	Airport Terminal
INU	2	Detention Center
INU	3	Foreign Diplomatic Mission
INU	4	Fire Station
INU	5	Government Office
INU	6	Handicapped Home
INU	7	Hospital
INU	8	Hostel
INU	9	Library/Archive
INU	10	Memorial
INU	11	Multi Purpose Hall
INU	12	Army Camp
INU	13	Museum
INU	14	Old Folk Home
INU	15	Parliament House
INU	16	Phone Booth
INU	17	Police Station
INU	18	Police Training Center
INU	19	Police Beat (Pondok Polis)
INU	20	Port
INU	21	Post Office
INU	22	Prison
INU	23	Army Training Center
INU	24	Public Toilet
INU	25	Immigration Detention Center (Pusat Tahanan Imigresen)
INU	26	Railway Station
INU	27	Rehabilitation Center
INU	28	Research Station/Laboratory
INU	29	Science Center
INU	30	State Assembly Hall
INU	31	Taxi Stand
INU	32	Bus Stop
INU	33	Bus Station
INU	34	Town Hall
INU	35	Art Theatre (National Theatre)

INU	36	Welfare Home
INU	37	Youth Club
INU	38	Youth Hostel
INU	39	Community Hall (Balai Raya)
INU	40	Clinic
INU	41	Club House
INU	42	Court
INU	43	Orphanage
INU	44	Palace

IRC Irrigation Drain Category

Category of an irrigation drain

IRC	1	Main
IRC	2	Secondary
IRC	3	Field

IRS Irrigation Drain Structures

Type of Structures

IRS	1	Drainage Control
IRS	2	Drainage Crossing
IRS	3	Drainage Control cum Crossing
IRS	4	Drainage Protection

IRT Igneous Rock Type

Type of an igneous rock

IRT	1	Acid
IRT	2	Intermediate
IRT	3	Basic
IRT	4	Ultrabasic

IST Intrusive Structure Type

Type of an intrusive structure

IST	1	Reef
IST	2	Dyke
IST	3	Sill
IST	4	Vein

ITT Interchange Type

Type of a road interchange

ITT	1	Trumpet
ITT	2	Ramps in one quadrant
ITT	3	Diamond interchange

ITT	4	Partial clover leaf
ITT	5	Full clover leaf

IUT Irrigation Structure Type

Structures constructed in an irrigation area to regulate and remove excess water for paddy cultivation

IUT	1	Drainage Control
IUT	2	Drainage Crossing
IUT	3	Drainage Control cum Crossing
IUT	4	Drainage Protection

JYC Jetty Category

Category of a jetty

JYC	1	Passenger
JYC	2	Freight
JYC	3	Fishery

KCT Kampung Coverage Type

Category of a kampung Coverage Type

KCT	1	Traditional
KCT	2	Fishing
KCT	3	Tersusun
KCT	4	Atas Air
KCT	5	Aboriginal
KCT	6	Group Settlement
KCT	7	New Village
KCT	8	Squatters
KCT	9	Estate

KMT Kilometer Post Type

Type of a kilometer post

KMT	1	A
KMT	2	B

LAN Number of Lane

Number of travel lane on a road surface

LAN	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Lane	Short Integer			

LAU Lay-by Usage

Usage of a lay-by

LAU	1	Taxi
LAU	2	Bus
LAU	3	Emergency

LBT Landing Base Type

Type of a landing base for helicopters

LBT	1	On Building
LBT	2	On Ground
LBT	3	Deck

LCC Light Characteristic Category

The sequence, grouping and distinctive character of light

LCC	1	Alternating
LCC	2	Flashing
LCC	3	Long-Flashing
LCC	4	Occulting
LCC	5	Ultra Quick
LCC	6	Quick
LCC	8	Very Quick
LCC	9	Group
LCC	10	Composite Group
LCC	11	Morse Code
LCC	12	Isophase
LCC	13	Lighted
LCC	14	Unlighted
LCC	15	Interrupted
LCC	16	Fixed
LCC	17	Intensified
LCC	18	Directional

LEN Length

Length of a feature, in meters

LEN	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Meters	Floating			

LIF Lift Facilities

Identifies whether or not a building has lift

LIF	1	Has Lift
LIF	2	Has No Lift

LST Landslide Type

Type of a landslide

LST	1	Circular
LST	2	Translational
LST	3	Compound
LST	4	Debris flow
LST	5	Mudflow

LTY Lineament Type

Type of lineament

LTY	1	Lineament positive
LTY	2	Lineament negative
LTY	3	Scarp

MAE Mineral Anomaly Elements

Identifies the elements of a mineral anomaly

MAE 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

MDF Mixed Dipterocarp Forest Type

Type of a mixed dipterocarp forest

MDF	1	Upper Dipterocarp
MDF	2	Hill Dipterocarp
MDF	3	Lowland Dipterocarp

MET Mineral Exploration Block Type

Type of a mineral exploration block

MET	1	Geological
MET	2	Geochemical
MET	3	Geophysical
MET	4	Prospecting

MFT Montane Forest Type

Type of a montane forest

MFT	1	Upper Montane Forest
MFT	2	Lower Montane Forest

MIC Mineral Category

Identifies the category of a mineral

MIC	1	Occurrence
MIC	2	Prospect
MIC	3	Deposit
MIC	4	Reserve

MIG Mineral Group

Identifies the group of minerals

MIG	1	Metallic minerals
MIG	2	Non-metallic minerals
MIG	3	Precious minerals
MIG	4	Energy minerals
MIG	5	Mixed minerals
MIG	6	Clay-based
MIG	7	Sand-based
MIG	8	Rock-based

MIN Mineral Name

Identifies the name of a mineral

MIN	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

MKT Marker Type

Type of an international or state boundary marker

MKT	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

MNT Mine Type

Type of a mine

MNT	1	Surface (other than dredging)
MNT	2	Dredging
MNT	3	Underground

MOS Monument Station

Identifies whether or not a surveyed point is monumented

MOS	1	Monumented
MOS	2	Not Monumented

MPT Mine Pit Type

Type of a mine pit

MPT	1	Surface
MPT	2	Underground

MRG Metamorphic Rock Group

Identifies the group of metamorphic rocks

MRG	1	Regional
MRG	2	Contact
MRG	3	Dynamic

MSC Meteorology Station Category

Category of a meteorological station

MSC	1	Main
MSC	2	Auxiliary

MTP Mineral Type

Type of a mineral

MTP	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

MTT Mining Tail Area Type

Type of a mining tail area

MTT	1	Wet area
MTT	2	Dry area

MTY Metallic Mineral Type

Type of a metallic mineral

MTY	1	Precious metals
MTY	2	Base metals
MTY	3	Light metals
MTY	4	Iron & ferrous alloy
MTY	5	Tin & associated minerals
MTY	6	Rare metals

NAM Name

Any name to identify a feature

NAM 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			80 Characters

NAT Navigation Aid Type

Type of a navigation aid

NAT	1	Locator
NAT	2	Non-Directional Beacon (NDB)
NAT	3	VHF Omni-Directional Radio Range (VOR)
NAT	4	UHF Tactical Air Navigation Aid (TACAN)

NBS Number of Bridge Span

Number of span supporting a bridge

NBS 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Span	Short Integer			

NOD Number of Direction

The total number of directions a vehicle is allowed to proceed at a road junction

NOD 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Span	Short Integer			

NOS Number of Storey

Number of storey of a building or man-made structure

NOS 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Storey	Floating			

OPS Operational Status

Identifies the status of a mine/quarry

OPS 1 Active
OPS 2 Inactive

OSM Outer Space Material

Type of outer space material

OSM 1 Stony (chondrite and achondrite)
OST 2 Stony-iron
OST 3 Iron
OST 4 Glassy Tektites

PAR Plutonic Acid Rock Type

Type of plutonic acid rock

PAR 1 Granite (including Adamalite)
PAR 2 Alkali granite

PAT Parking Area Type

Type of a parking area

PAT 1 On Ground
PAT 2 Underground
PAT 3 Multistorey

PAU Passage Usage

Usage of an overhead or subway passage

PAU 1 Pedestrian
PAU 2 Cycle
PAU 3 Both

PBT Plutonic Basic Rock Type

Type of plutonic basic rock

PBT	1	Gabbro
PBT	2	Gabbronorite
PBT	3	Anorthosite

PCC Coverage Percentage

Percentage of survey area covered

PCC 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Percent	Floating			

PCU Pond Complex Usage

Usage of the pond complex

PCU	1	Flood Retention
PCU	2	Silt Retention
PCU	3	Recreational
PCU	4	Aquatic Farming
PCU	5	Others

PER Person

Name of the responsible person

PER 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

PFT Planted Forest Type

Type of a planted forest

PFT	1	Pine Tree
PFT	2	Acacia
PFT	3	Teak
PFT	4	Sentang
PFT	5	Hevea

PGS Playground Services

Type of playground services

PGS	1	Children
PGS	2	Tennis
PGS	3	Futsal
PGS	4	Takraw
PGS	5	Badminton
PGS	6	X-game

PHU Pump House Usage

Usage of a pump house

PHU	1	Water Supply
PHU	2	Flood
PHU	3	Drainage
PHU	4	Ground Water
PHU	5	Irrigation/Agriculture

PIT Plutonic Intermediate Rock Type

Type of plutonic intermediate rock

PIT	1	Syenite
PIT	2	Granodiorite
PIT	3	Diorite
PIT	4	Monzonite
PIT	5	Monzodiorite
PIT	6	Tonalite

PLA Power Line Category

Category of a power line

PLA	1	On Ground
PLA	2	Under Ground
PLA	3	Elevated
PLA	4	Sub Marine

PLC Power Line Characteristic

Identifies whether the power line is insulated or bare

PLC	1	Insulated
PLC	2	Bare

PLT Power Line Type

Type of a power line

PLT	1	Transmission
PLT	2	Distribution

POT Pond Type

Type of a pond

POT	1	Retention
POT	2	Detention
POT	3	Aquaculture
POT	4	Wastewater
POT	5	Mining

POU Pole Usage

Usage of a pole

POU	1	Electricity
POU	2	Telecommunication

PPT Pipe Line Type

Type of an oil/gas pipeline

PPT	1	Gas
PPT	2	Oil

PRN Priority

Identifies the importance of an anomaly for follow-up investigation

PRN	1	Require immediate follow-up
PRN	2	Require follow-up
PRN	3	May require follow-up
PRN	4	Does not require follow-up

PRT Processing Plant Type

Type of a processing plant

PRT	1	Liquid Propane Gas (LPG)
PRT	2	NGV
PRT	3	Natural Gas

PST Power Station Type

Type of energy source used to generate power

PST	1	Hydro
PST	2	Coal
PST	3	Oil
PST	4	Gas
PST	5	Diesel
PST	6	Genset
PST	7	District Cooling System
PST	8	Biomass
PST	9	Cogen
PST	10	Mobile GenSet
PST	11	Wind

PTY Profile Type

Type of a profile

PTY	1	Geological cross section
PTY	2	Hydrogeological cross section
PTY	3	Engineering geology profile
PTY	4	Geophysical profile

PUB Plutonic Ultrabasic Rock Type

Type of plutonic ultrabasic rock

PUB	1	Dunite
PUB	2	Iherzolite
PUB	3	Harzburgite
PUB	4	Serpentinite
PUB	5	Pyroxenite
PUB	6	Hornblendite

PYU Pylon Usage

Identifies the usage of a pylon

PYU	1	Electricity transmission
PYU	2	Cable car

QAT Quarry Authorized Type

Type of an authorized quarry

QAT	1	Lease
QAT	2	License
QAT	3	Permit

QUT Quarry Type

Type of a quarry

QUT	1	Surface
QUT	2	Subsurface

QUU Quarry Use

Identifies the use of a quarry

QUU	1	Aggregate
QUU	2	Dimension stone
QUU	3	Agricultural application
QUU	4	Lime
QUU	5	Cement
QUU	6	Armour stone

RBT Rock Boulder Type

Type of a rock boulder

RBT	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

RBU Religious Building Usage

Usage of a religious building

RBU	1	Surau
RBU	2	Mosque
RBU	3	Chapel or Church
RBU	4	Chinese Temple
RBU	5	Hindu Temple
RBU	6	Buddhist Temple
RBU	7	Sikh Temple
RBU	8	Thai Temple
RBU	9	Bahai Temple

RCT Religious Burial Ground Type

Type of a burial ground

RCT	1	Muslim
RCT	2	Christian
RCT	3	Chinese
RCT	4	Hindu
RCT	5	Bahai
RCT	6	Sikh

RDC Road Category

Category of a road

RDC	1	Toll Expressway & Toll Highway
RDC	2	National Highway
RDC	3	Federal Roads within Federal Territories
RDC	4	Regional development Scheme Road
RDC	5	Minor Roads (access to Federal Government Institutions)
RDC	6	State Roads within Federal Territories
RDC	7	Primary Road
RDC	8	Secondary Road
RDC	9	Minor Road
RDC	10	Collector Road
RDC	11	Arterial Road
RDC	12	Local Street
RDC	13	Farm Road
RDC	14	Loggers Road

RDF Traffic Flow

Identifies whether the traffic flow is in one or two direction

RDF	1	One Direction
RDF	2	Two Direction

RDS Road Service Area

An area where Road Service located

RDS	1	Urban
RDS	2	Rural

REC Record Number

Identifies the file or record number

REC	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			12 Characters

RES Report Status

Identifies the status of a report

RES	1	Draft
RES	2	Final

RET Residential Building Type

Type of building used for residential purposes

RET	1	Detached
RET	2	Semi Detached
RET	3	Terrace/Link
RET	4	Multi Storey
RET	5	Long House
RET	6	Cluster
RET	7	Town Houses
RET	8	Multi Unit

REU Residential Usage

Usage of a residential building

REU	1	Condominium
REU	2	Service Apartment
REU	3	Apartment
REU	4	Low Cost House
REU	5	Low Cost Flat
REU	6	Public Housing
REU	7	Private Housing
REU	8	Flat
REU	9	Government Quarters
REU	10	Squatters
REU	11	Transit Housing
REU	12	Communal Housing

RFC Reef Category

Category of a reef

RFC	1	Submerged Reef
RFC	2	Inter Tidal Reef

RFT Rockfall Type

Type of a rockfall

RFT	1	Toppling
RFT	2	Planar
RFT	3	Wedge

RGT Railway Gate Type

Type of a railway gate

RGT	1	Manned
RGT	2	Unmanned

RIT Ridge Type

Type of a ridge

RIT	1	Outcrop
RIT	2	Non Outcrop

RKT Rock Type

Type of a rock

RKT	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

RLP Reclaimed Land Purpose

Usage of land after reclamation

RLP	1	Industrial
RLP	2	Residential
RLP	3	Recreational
RLP	4	Commercial

RMT Regional Metamorphic Rock Type

Type of regional metamorphic rock

RMT	1	Metasandstone
RMT	2	Metaquartzite
RMT	3	Metasiltstone
RMT	4	Metaconglomerate
RMT	5	Marble
RMT	6	Slate
RMT	7	Phyllite
RMT	8	Schist
RMT	9	Gneiss

RNO Registered Number

Unique reference number of a feature

RNO	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			12 Characters

ROT Rock Outcrop Type

Type of a rock outcrop

ROT 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

RPT Riverbank Protection Type

Type of material used for river protection works

RPT 1 Concrete
RPT 2 Steel
RPT 3 Rocks
RPT 4 Bakau

RPV Road Pavement Type

The physical surface type of a road

RPV 1 Rigid
RPV 2 Flexible

RRC Rural Road Category

Categories of roads in rural areas

RRC 1 Expressway
RRC 2 Highway
RRC 3 Primary Road
RRC 4 Secondary Road
RRC 5 Minor Road

RRL Rudaceous Rock Litho Type

Type of rudaceous rock litho

RRL 1 Conglomerate
RRL 2 Breccia

RST Rail Station Type

Type of a rail station

RST 1 Station
RST 2 Halt

RTC Rail Track Category

Category of a rail track

RTC	1	Single Rail
RTC	2	Standard Gauge Rail
RTC	3	Meter Gauge Rail

RTE Rail Track Electrification

Identifies whether or not electricity is provided for a rail track

RTE	1	Electrified
RTE	2	Non Electrified

RTF Rail Track Function

Type of a rail track in terms of its functionality

RTF	1	Main
RTF	2	Branch
RTF	3	Siding
RTF	4	Loop
RTF	5	Spurline

RTN Route Number

Official route number assigned to a route

RTN	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			6 Characters

RTR Rail Tracking

Identifies whether a rail is a single or double track

RTR	1	Single Track
RTR	2	Double Track

RTU Rail Usage

Usage of a rail track, station or terminal

RTU	1	Mono Rail
RTU	2	Keretapi Tanah Melayu (KTM)
RTU	3	Express Rail Link (ERL)
RTU	4	Projek Usahasama Transit Aliran Ringan (PUTRA)
RTU	5	Sistem Transit Aliran Ringan (STAR)
RTU	6	Funicular

RVT Reservoir Type

Type of a reservoir

RVT	1	Balancing
RVT	2	Service

RYT River Groyne Type

Type of material used for river protection works

RYT	1	Permeable
RYT	2	Impermeable

SAT Sand Type

Type of sands

SAT	1	Undifferentiated
SAT	2	Marine
SAT	3	Non-marine

SCC Submarine Cable Category

Category of a submarine cable

SCC	1	Power
SCC	2	Telecommunication

SCO Sand Composition

Identifies the composition of sands

SCO	1	Coral
SCO	2	Quartz
SCO	3	Feldspar
SCO	4	Rock fragments
SCO	5	Heavy minerals

SCT Clinic Service Type

Category of a Clinic Service Type

SCT	1	Rural
SCT	2	Dental
SCT	3	Maternity
SCT	4	Polyclinic

SDT Surficial Deposit Type

Type of a surficial deposit

SDT	1	Residual
SDT	2	Alluvial
SDT	3	Glacial

SFT Swamp Forest Type

Type of forest found in swampy area on coastal and riverian flats

SFT	1	Peat Swamp Forest
SFT	2	Freshwater Swamp Forest
SFT	3	Nipah

SGR Slope Gradient

A value representing the gradient of a slope

SGR	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Percentage	Floating			

SHT Shore Type

Tabulates the material type likely to be found at a shore

SHT	1	Sandy
SHT	2	Stony
SHT	3	Muddy

SHV Spot Height Value

A value representing above mean sea level height, usually for photogrammetrically derived point

SHV	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Percentage	Floating			

SIG Signalisation

Identifies whether or not a feature is signalized.

SIG	1	Signalised
SIG	2	Unsignalised

SIT Silt Type

Type of silts

SIT	1	Undifferentiated
SIT	2	Marine
SIT	3	Non-marine

SLC Street Light Category

Category of a street light

SLC	1	On Ground
SLC	2	Under Ground
SLC	3	Sub Marine

SLT Sedimentary Others Type

Other sedimentary litho

SLT 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Text String	ASCII Text			24 Characters

SMD Sewerage Force Main Diameter

The diameter of a sewerage main line

SMD 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Millimeters	Short Integer			24 Characters

SMM Sewerage Force Main Material

Material used for the construction of a sewerage main line

SMM	1	Steel
SMM	2	Centrifugal Glass Reinforced Plastic
SMM	3	Unplasticised Polyvinyl Chloride
SMM	4	Ductile Iron

SPD Sewerage Pipe Diameter

Diameter of a sewerage pipe

SPD 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Millimeters	Short Integer			

SPM Sewerage Pipe Material

Material used for the construction of a sewerage pipe

SPM	1	Vitrified Clay
SPM	2	Reinforced Concrete
SPM	3	High Density Polyethylene
SPM	4	Centrifugal Glass Reinforced Plastic
SPM	5	Ductile Iron

SPT Sewerage Pipe Type

Type of a sewerage pipe

SPT	1	Trunk
SPT	2	Reticulation
SPT	3	Lateral Connection

SRT Sedimentary Rock Type

Type of a sedimentary rock

SRT	1	Argillaceous
SRT	2	Arenaceous
SRT	3	Rudaceous
SRT	4	Calcareous

SSC Substation Category

Category of a substation

SSC	1	Primary PMU
SSC	2	Primary PPU
SSC	3	Secondary PE
SSC	4	Indoor Room
SSC	5	Indoor Building
SSC	6	Outdoor On Land
SSC	7	Outdoor On Pole
SSC	8	Outdoor Compact

STA Status

Operational status of a feature such as railway and road

STA	1	In Operation
STA	2	To be Constructed
STA	3	Under Construction
STA	4	Abandon

STR Strike

Direction or trend taken by a structural surface or line with respect to north in clockwise direction

STR	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Degree	Floating			

STT Sewerage Treatment Plant Type

Type of a sewerage treatment plant

STT	1	Communal Septic Tank
STT	2	Omhoff Tank
STT	3	Oxidation Ponds
STT	4	Bio Drum
STT	5	Bio Filter
STT	6	Bio Soil
STT	7	Trickling Filter
STT	8	Rotating Biological Contact
STT	9	Acty Bio
STT	10	Aerated Lagoon
STT	11	Activated Sludge
STT	12	Extended Aeration
STT	13	Loyal Extended Aeration
STT	14	High Kleen
STT	15	Oxidation Ditch
STT	16	Sewerage Aeration Treatment System
STT	17	Sequential Batch Reactor
STT	18	Upflow Aerobic Sludge Blanket

STY Stockpile Type

Type of a stockpile

STY	1	Mining stockpile
STY	2	Quarry stockpile

SUS Status of Survey

The status of survey for a land parcel or lot

SUS	1	Survey completed
SUS	2	Survey not yet completed

SUT Survey Point Type

Type of a survey point on the ground of known position

SUT	1	Tellurometer Traverse Point
SUT	2	Bearing Tellurometer Distance Point
SUT	3	Photo Control Point
SUT	4	Reference Secondary Point
SUT	5	Standard Traverse Point
SUT	6	Reference Tellurometer Transit Point
SUT	7	Reference Standard Traverse Point
SUT	8	Tertiary Point
SUT	9	Cadastral Boundary Point

SVP Survey Phase

Identifies the phase of a survey

SVP	1	Reconnaissance
SVP	2	Follow-up
SVP	3	Detailed

SWT Swamp Type

Type of a swamp

SWT	1	Tidal
SWT	2	Non Tidal

SZT Supply Zone Type

Type of a supply zone

SZT	1	Demand Area
SZT	2	Demand Center

TAT Tank Type

Type of a tank

TAT	1	Ground Tank
TAT	2	Tower Tank

TAU Tank Usage

Identifies the usage of a tank

TAU	1	Water
TAU	2	Petroleum

TBT Trap Boom Types

The different types of booms

TBT	1	Long Boom
TBT	2	Trash Screen
TBT	3	Trash Rake

TCC Track Category

Category of a travel path

TCC	1	Motorable
TCC	2	Unmotorable

TCT Track Type

Type of a travel path

TCT	1	Recreational
TCT	2	Logging
TCT	3	Cycle

TEX Texture

Identifies the texture of a silt, sand, gravel, colluvium and clay features

TEX	1	Clayey
TEX	2	Silty
TEX	3	Sandy
TEX	4	Gravelly

TNU Tunnel Usage

Usage of a tunnel

TNU	1	Railway
TNU	2	Road
TNU	3	Flood Mitigation
TNU	4	Multi Modal

TOL Toll

Identifies whether the use of a highway/road is free or charged

TOL	1	Toll
TOL	2	Free

TRA Traffic Sign Type

Type of a traffic sign

TRA	1	Standard Road Sign
TRA	2	Variable Message Sign

TST Trigonometry Station Type

Type of a trigonometric station

TST	1	Geodetic Station
TST	2	Primary Station
TST	3	Secondary Station
TST	4	Reference Secondary Point
TST	5	Tertiary Station
TST	6	Traverse Trigonometry Station
TST	7	Brunei Trigonometry Station

VAT Volcanic Acid Rock Type

Type of a volcanic acid rock

VAT	1	Rhyolite

VBT Volcanic Basic Rock Type

Type of a volcanic basic rock

VBT	1	Basalt
VBT	2	Spilite

VIT Volcanic Intermediate Rock Type

Type of a volcanic intermediate rock

VIT	1	Andesite
VIT	2	Trachyte
VIT	3	Dacite

VLT Voltage

A value representing the voltage of a power line

VLT	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Volts	Short Integer			

VOF Volcanic Form

Includes pyroclastics and volcanic flow

VOF	1	Ash
VOF	2	Tuff
VOF	3	Agglomerate
VOF	4	Flow

VTC Vertical Clearance

A value representing the minimum height that is passable to traffic

VTC 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Meter	Short Integer			

WAM Water Level Mark

The line along a coast that marks a high or low tide

WAM	1	High Water Mark
WAM	2	Low Water Mark

WAT Waste Type

Type of a waste

WAT	1	Chemical
WAT	2	Hazardous
WAT	3	Clinical
WAT	4	Radioactive
WAT	5	Solid

WID Width

Width of a feature, in meters

WID 0 Actual Value

Units	Format	Range	Increment	Maximum Character
Meter	Floating			

WIT Water Pipe Type

Type of a water pipe

WIT	1	Trunk
WIT	2	Distribution
WIT	3	Reticulation
WIT	4	Communication

WKC Wreck Category

Category of a wreck

WKC	1	Swept
WKC	2	Unswept

WKD Wreck Depth

Identifies whether the depth of a wreck is known or unknown

WKD	1	Depth Known
WKD	2	Depth Unknown

WLT Well Type

Type of a well

WLT	1	Masonry
WLT	2	Earth
WLT	3	Tube

WOS Work Status

Status of a work

WOS	1	Ongoing
WOS	2	Completed

WPC Water Pump Category

Category of a water pump

WPC	1	Treatment
WPC	2	Raw

WPT Water Pump Type

Type of a water pump

WPT	1	Inlet
WPT	2	Outlet

WRU Water Route Usage

Usage of a water route

WRU	1	Ferry
WRU	2	Boat
WRU	3	Ship

WTY Well Type

Type of a well

WTY	1	Pump
WTY	2	Test
WTY	3	Production

WVT Water Valve Type

Type of a water valve

WVT	1	Foot Valve
WVT	2	Air Valve
WVT	3	Altitude Valve
WVT	4	Sluice Valve
WVT	5	Pressure Reducing Valve
WVT	6	Non Return Valve
WVT	7	Butterfly Valve
WVT	8	Scour Valve

ZEL Z Ellipsoidal

A value representing height above an ellipsoid

ZEL	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Meter	Floating			

ZGP Z Global Positioning System

A value representing height obtained from GPS observations

ZGP	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Meter	Floating			

ZOC Zoning Category

Category of zoning

ZOC	1	Residential
ZOC	2	Commercial
ZOC	3	Industrial

ZOR Z Orthometric

A value representing vertical distance (height) of a feature measured the from mean sea level

ZOR	0	Actual Value

Units	Format	Range	Increment	Maximum Character
Meters	Floating			

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